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IN COLLEGES AND
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Rating, Placing, and Promotion of Teachers

Lists of Investigations and Other Information of Interest to Members

Papers by
CARTER ALEXANDER, C. H. JOHNSTON, WILLIAM C. RUEDIGER, HARLAN UPDEGRAFF, F. E. THOMPSON, F. L. CLAPP, A. C. BOYCE

Papers Presented for Discussion at the Meeting of the Society of College Teachers of Education, Cincinnati, Ohio
February 23, 1915

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TABLE OF CONTENTS

PAGE

Introduction 1

Aims of Departments of Education in Colleges and Universities 2
Carter Alexander

Facilities for Teacher-Training in Colleges and Universities 7
Charles Hughes Johnston

Credit Granted by Colleges and Universities to Graduates of Normal Schools 23
William C. Ruediger

Recognition Given College Graduates in the Granting of Teachers' Certificates 39
Harlan Updegraff

Committee on Rating, Placing, and Promotion of Teachers: Some Propositions and a Plan for the Improvement of Conditions 61
Frank E. Thompson

Scholarship in Relation to Teaching Efficiency . . . 64
F. L. Clapp

A Method for Guiding and Controlling the Judging of Teaching Efficiency 71
A. C. Boyce

List of Investigations by Members 83
Carter Alexander

WORK IN EDUCATION IN COLLEGES AND UNIVERSITIES

Report of Committee on Normal Schools

INTRODUCTION

In view of the fact that more than three hundred universities and technical schools now maintain courses in education, it is of importance to know some of the details in connection with the conditions under which these courses are being presented.

Your Committee presents the following reports on the Work in Education in Colleges and Universities.

W. A. Jessup, *Chairman*

AIMS OF DEPARTMENTS OF EDUCATION IN COLLEGES AND UNIVERSITIES

CARTER ALEXANDER
Professor of School Administration, George Peabody College for Teachers

What are the college and university departments of education actually trying to do? To answer this question is the writer's task as he understands that task.

Obviously an adequate answer to this question could be given only after all the other papers presented by this committee had been carefully studied; also after a complete survey of normal schools for purposes of comparison had been made. Neither the papers nor the survey were in existence this year. The writer, accordingly, has been compelled to get his data from the catalogues of the institutions concerned, not wishing to afflict professors of education the country over with questionnaires that would duplicate the material presented by other committee members.

Two lines of evidence appear in these announcements: what the institutions claim as their purposes, and the classes of students for whom they provide work. This paper then aims to present the essential facts in these two lines, as far as they can be secured from a study of the latest catalogues of the institutions listed in the 1913 United States Commissioner of Education's report, as having a department of education. Two hundred and six such catalogues were obtained—about two-thirds the number of institutions listed.

The institutions fall rather naturally into five groups: state universities, non-state institutions generally recognized for their work in education, smaller colleges and universities, women's colleges, and agricultural colleges. Lack of space prevents full publication of the data, but a tolerably wide knowledge of educational departments enables the writer to feel sure that practically no educational department of importance in the country was overlooked.

Everyone knows with how much salt catalogue statements and announcements must often be taken; also how hard it is to interpret a catalogue without the help of some person familiar with the institution's work. For these reasons it is not worth while to give elaborate tables of carefully calculated percentages. The writer, however, has all his data[1] and can give full details on any point.

Of the education departments in the forty state universities examined, all of course claim to train teachers. But every one also aims to give work in education as a part of a liberal education. Fourteen of these departments are stated to be departments in the college of arts and science; twenty others are what may be called "pseudo-separate" schools or independent departments of education with individual organization, a separate degree, and a curriculum of its own; only six, Florida, Kansas, Missouri, Pennsylvania, Ohio, and Washington, appear to have a really separate organization with a separate degree and curriculum. Training for research in education is named as an aim by only six universities, but they are all abundantly equipped to give such training properly.

All of these departments claim to be training high-school teachers, superintendents, and principals. Only one-third claim to train normal-school teachers and only one-sixth, college teachers. One-half offer work for special supervisors and a third give courses for elementary teachers, Florida, New Mexico, Utah, and Wyoming having what appears to be virtually a sub-department devoted to normal-school work, while Arkansas and South Carolina make special provision for grade teachers. The aim of training rural teachers or county superintendents as such is almost unmentioned. Only one-fifth claim to train teachers of special subjects such as music, drawing, agriculture, manual training, physical education, and home economics (Idaho, Illinois, Missouri, Mississippi, Montana, Ohio, Texas, and Washington).

Of the departments of education in the twenty-two large non-state institutions examined, all claim to train teachers and at the same time give work that is a part of a liberal education. But only a third (Tulane, New York, Teachers College, Pittsburgh,

[1] For much help on securing these data, the author is indebted to two of his graduate students, E. McK. Highsmith and A. C. Burkeholder.

Peabody, Southwestern, and Chicago) appear to have a really separate organization or degree. Half the lot claim to train for research in education, and they are the institutions well qualified for such work.

All the group claim to prepare high-school teachers, principals, and superintendents, with the exception of Yale and Johns Hopkins. These two really offer work for such teachers. Only ten claim to prepare normal-school teachers, and only eight, college teachers. About three-fourths prepare supervisors, and a half, elementary teachers. A third prepare teachers of special subjects—Teachers College, Chicago, Pittsburgh, Peabody, Leland Stanford Junior, and Cincinnati. Only Teachers College, Pittsburgh, and Peabody mention agriculture or rural teachers in their statement of aims.

In the case of the smaller non-state institutions, of course, all degrees of excellence and variations in organization are to be expected. Of the one hundred and seven catalogues in this group, practically all mention teacher-training, and there is not a single instance of a really separate organization of the department of education, except in a few cases of low-grade work where the L.I. degree is given for work far short of a Bachelor's degree standard. In this group education is simply part of the liberal arts and science work, with teacher-training as a secondary aim.

Three-fifths of the group claim to train high-school teachers, two-fifths, superintendents, one-fourth, grade teachers, one-ninth, rural teachers, while teachers of special subjects vary from one-half in home economics down to one-fifteenth in the other special lines, half the latter being in Ohio. Only three small colleges, two of very doubtful standing, claim to prepare college and normal-school teachers.

In the colleges for women, many are obviously of very doubtful grade. But in all, with the exception of Bryn Mawr, the department appears to be simply a part of the work in arts and science. A great vagueness of statement of aim pervades the catalogues of this group, but all emphasize the training of teachers. Less than half specify high-school teachers, and far fewer still, elementary teachers. Their chief aim appears to be, as far as teachers are concerned, to equip teachers of special subjects.

Nearly all mention music, one-half, home economics, and a third each, physical education and drawing which covers art.

For the agricultural colleges, only those were examined that are separate from the state university with its department of education, twelve in number. Of these only Kansas appears to have a really separate organization for teacher-training inside the college. None claim to train superintendents and principals, but all save one care for high-school teachers. Only one wishes elementary teachers. All, of course, prepare teachers of agriculture; practically all, teachers of home economics; a half, music; and a third, drawing and manual training.

To summarize, the college and university departments of education are, as a rule, departments of the colleges of liberal arts and science. They, in general, offer work in education as a part of a liberal education, with an idea of making it at the same time valuable for prospective teachers. A few of the larger institutions aim to train students to investigate educational problems in much the same way as they offer research training in any other line.

Practically all these departments of any consequence are striving to train superintendents, principals, and high-school teachers. A few of the stronger ones are trying as well to fit prospective normal-school and college teachers. Not over a third aim to train elementary teachers, and most of these are the weaker institutions in places where the work is not clearly differentiated from that of normal schools. A very small fraction try to train teachers of special subjects, except in colleges for women and the state agricultural colleges which take special care of such teachers. Practically none of the departments appear to be consciously trying to prepare rural teachers and county superintendents.

It is not claimed that many teachers of the various groups are not trained in institutions where the department of education exercises no control or guidance over them. For instance, manual-training teachers may be prepared in the engineering school of a university where the department of education makes no mention of them. But it is claimed that the facts as presented show the classes of teachers that the departments of education are actually trying to influence.

Finally it may be well to point out that, although theoretically the education courses may be considered part of a liberal education, still the membership of such classes may materially change their aim. This is borne out by the results of an investigation by Professor A. Monroe Stowe of the University of Toledo, received too late for complete publication with this report. Professor Stowe investigated the aims of students enrolled in the classes in education of forty-four representative college departments throughout the country. He found that in over half the departments of education less than 13 per cent of the students enrolled did not intend to teach. In only seven cases did the students not intending to teach constitute over 25 per cent of the enrolment of the departments of education. Twelve departments of education with a total enrolment of sixteen hundred students apparently did not have a single educational layman in them.

FACILITIES FOR TEACHER-TRAINING IN COLLEGES AND UNIVERSITIES[1]

CHARLES HUGHES JOHNSTON
Professor of Secondary Education, University of Illinois

The large budget items of college departments are for instruction and for library and laboratory equipments. These, the teaching staff, the library, and the laboratory, afford a good index of the relative status and of the working efficiency of a given department. As the teacher-training function of an institution makes demands, not only upon the department of education, but also upon all academic departments whose subjects also find a place in the curricula of lower schools, the institutional equipment for such work must be estimated, not only by the equipment of the department of education, but partly also by the strength of these other contributing departments of every well-equipped institution of higher education.

In this discussion, institutional facilities for teacher-training include, therefore, both academic and professional teaching staffs and library and laboratory equipments.

The data supporting the discussions of the "facilities" come from eighty-eight institutions covering the entire country. As originally submitted, this paper included my tabulations of data on one hundred and forty-five institutions representing forty states, collected through Professor Doster's questionnaire. But as the size of the Yearbook had to be reduced, it was unfortunately necessary to leave out much important data and many tables.

There being no usable existing classification of these higher educational institutions, an arbitrary grouping has been adopted. Group I is composed of state universities, Group II, of large non-state universities supporting graduate schools, Group III, of the smaller privately endowed colleges in which for the most part the

[1] For assistance in deciphering replies, making tables, and hazarding the few interpretations the author must thank here three of his graduate students, Messrs. J. L. Conel, J. H. Hanger, and J. H. Johnston.

writer has supposed graduate work to be more or less incidental, and Group IV, of state agricultural colleges in cases where these are independent of state universities.

Below are the names of institutions reporting, arranged according to the above groupings:

GROUP I

State universities.—Alabama, Arkansas, Colorado, Idaho, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nevada, School of Pedagogy of New York University,[1] Tennessee, Texas, Washington, Wyoming—Total, 17.

GROUP II

Large non-state universities.—Chicago, Columbia (Teachers College), George Washington, Harvard, Johns Hopkins, Northwestern, Pennsylvania, Pittsburgh, Leland Stanford Junior—Total, 9.

GROUP III

The smaller college.—Adrian College, Michigan; Alfred University, New York; Alma College, Michigan; Baylor University, Texas; Berea College, Kentucky; Bowdoin College, Maine; Brown University, Rhode Island; Catholic University of America, District of Columbia; Clark College, Massachusetts; Coe College, Iowa; College of the City of New York, New York; College Park, Virginia; College of William and Mary, Virginia; Drury College, Iowa; Earlham College, Indiana; Emory and Henry College, Virginia; Friends University, Kansas; Grand Island College, Nebraska; Hope College, Michigan; Howard College, Washington; Hunter College, New York; James Milliken University, Illinois; Juanita College, Pennsylvania; Kansas Wesleyan College, Kansas; Lawrence College, Wisconsin; Lennox College, Iowa; Meredith College, North Carolina; Middlebury College, Vermont; Nebraska Wesleyan University, Nebraska; Oberlin College, Ohio; Occidental College, California; Olivet College, Michigan; Ripon College, Wisconsin; Smith College, Massachusetts; Southwestern University, Texas; Swarthmore College, Pennsylvania; Temple University, Pennsylvania; Upper Iowa University, Iowa; University of Rochester, New York; University of Southern California—Total, 40.

GROUP IV

Independent agricultural colleges.—Oklahoma Agricultural and Mechanical College, Oklahoma; Purdue University, Indiana—Total, 2.

These reports were in answer to a questionnaire sent to those 204 institutions listed in the U.S. Commissioner's *Directory*

[1] By mistake this institution was counted, in Table I below, among state universities.

as institutions having a professor of pedagogy on the faculty. The questions were as follows:

FACILITIES FOR THE TRAINING OF TEACHERS IN COLLEGES AND UNIVERSITIES

LIBRARY

1. Number of volumes in the main library.....
2. The total budget item for library.....
3. The portion of funds assigned to academic department *other than education*, expended on educational books, journals, etc.....
4. Portion of such departmental library funds (other than for department of education) used to purchase old or modern school textbooks.....
5. *a)* Library fund for department or school of education.....
   b) Names of three departments with a larger library apportionment than the department of education..... ....
   c) Names of three departments with a smaller library apportionment than the department of education..... ....
6. Apportionment of funds of the department of education devoted to.....

	Apportionment of Funds	Number of Books
a) Current treatises of all sorts	.....	.....
b) Classic or historical books in English	.....	.....
c) Foreign books on education	.....	.....
d) Professional educational journals (American)	.....	.....
e) Professional educational journals (foreign)	.....	.....

7. *a)* Proportion of education courses conducted by the method of frequent assigned library readings.....
   b) Total number of courses offered.....
8. *a)* Have you an educational museum?.....When established?.....
   b) Character and size of collection?.....
   c) Total amount invested?.....

LABORATORY

9. *a)* Do students in education have access to adequate college laboratory in all laboratory subjects found in high-school curricula?.....
   b) If not all, specify those departments thus adequately equipped.....
   c) (1) Is there a laboratory for educational psychology, school hygiene? ....
      (2) If not, is the psychology laboratory used freely in connection with courses in education?.....
      (3) (*a*) Funds available for educational laboratory expenses? (Note whether "special" or regular yearly allowance.).....
         (*b*) Funds available for "field work," "surveys," etc.....

10. *a)* Do you have model practice and observation school? .....
(1) Number of teachers employed? .....
(2) Number of prospective teachers doing practice teaching? .....
(3) Number of hours of practice teaching required per week? .....
(*a*) Number of weeks? .....
(4) Number doing systematic observation? .....
(5) Number of hours required per week? .....
(*a*) Number of weeks? .....
(6) (*a*) Number of pupils in training school? .....
(*b*) Grades included? .....
(7) Tuition charges? .....
(8) Total cost of maintenance? .....
(9) Net cost of maintenance? .....
b) If no training school, what practice teaching is provided? .....
c) (1) How much of the foregoing work (in college credit hours toward graduation) is required of students? .....
(2) How equate this work in credit units toward graduation? .....
.....
d) (1) What other courses in education are required for the diploma, or certificate, or official recommendation by appointments bureau? ..
.....
.....
(2) Total hours toward graduation required? .....
e) Percentage of students electing courses in education beyond the minimum required for certificate or recommendation to teach? .....
f) Number of students not intending to teach, electing courses in education? .....
g) Names of special courses provided for these? .....
.....

TEACHING STAFF

11. *a)* Number of one-half year courses offered in the department of education yearly? .....
b) Number of instructors giving courses in education? Men .....
Women .....
c) Number of special methods courses ("Teachers' Courses") offered for prospective teachers by instructors in other departments than the department of education? .....
d) Average number of hours per week in subject or related subjects prerequisite for these "Teachers' Courses"? .....
e) Number of instructors in education with
(1) A.B. degree only..... (2) A.B. and A.M. (in course) .....
(3) Ph.D. (name institution and major subject if not education) .....
.....

(4) Years of public-school teaching experience.....(5) Experience in normal schools.....(6) Under five years' experience college teaching.....(7) Over five years' experience college teaching.....(8) Contributors to first-class educational journals.....(9) Author of one or more books.....

f) Salary of instructors.
No. 1.....No. 2.....No. 3..... etc.
.....

g) Number of instructors (not in department of education) offering "Teachers Courses" with
(1) A.B. degree only.....(2) A.B. and A.M. (in course).....
(3) Ph.D. (name institution and major subject if not education).....
.....
.....(4) Years public-school teaching experience .....
(5) Experience in normal schools.....(6) Under five years' experience college teaching.....(7) Over five years' experience college teaching.....(8) Contributors to first-class educational journals.....(9) Author of one or more books..
.....

Question 1—

The 68 institutions replying to this second questionnaire are distributed as follows: Group I, 17; Group II, 9; Group III, 40; and Group IV, 2.

TABLE I

	I	II	III	IV
Replies.....	17	9	35	2
Total no. volumes..	1,574,338	2,276,204	1,371,435	60,000
Range.....	9,033–259,954	15,000–600,000	1,200–225,000	20,000–40,000
Average.....	92,608	227,620	39,184	30,000
No. institutions above average....	8	3	10	1
No. institutions below average....	9	7	25	1

Harvard University (600,000), the University of Pennsylvania (344,428), and the University of Chicago (700,000) bring Group II average up very high.

It is to be noted that even in Group III only seven fall below 10,000 volumes for the library.

Question 2—

TABLE II

TOTAL BUDGET ITEM FOR LIBRARY

	I	II	III	IV
Replies	15	9	23	1
Total	$243,606	$241,571	$62,178	$500
Range	$2,056–$57,222	$800–$102,000	$100–$16,000	.....
Average	$16,240	$26,841	$2,703	.....
Above average	4	2	7	.....
Below average	11	7	16	.....

The University of Chicago ($102,000) and the University of Pennsylvania ($46,911) bring Group II average up. Three reported the budget as "without salaries," two as "with salaries," while the others did not specify as to this.

Question 3—

TABLE III

	I	II	III	IV
Replies	5	1	5	0
Total	$1,311.50	$2,000	$2,709	.....
Range	$26.50–$900	.....	$2–$1,850	.....
Average	$262.30	.....	$541.80	.....
Above average	1	.....	2	.....
Below average	4	.....	3	.....

Evidently the library accounts are not usually so distributed as to permit a definite answer to this question, for most of the amounts stated were estimates, while ten institutions reported "no data" or "impossible to state," eleven reported "none," and three "very small." All the other institutions gave no reply whatever. This shows that little is to be expected from indirect sources in the way of supplying educational books.

Question 4—

To this question three answered "very small," four "no data," and twenty-four "none." The other institutions did not make any reply.

This reinforces comment made on the Question 3 replies as to source of supply of library material for education.

Question 5 *a*—

TABLE IV

	I	II	III	IV
Replies	13	8	19	1
Total	$5,256	$16,358	$1,884	$25
Range	$155–$1,115	$100–$13,150	$20–$350	.....
Average	$404	$2,044	$99	.....
Above average	4	1	10	.....
Below average	9	7	9	.....

Teachers College, Columbia University ($13,150), and the University of Chicago ($1,600) bring average of group II up; the next highest is $500.

Ten institutions reported that they have no definite departmental apportionment. Seventeen failed to give any reply to the question.

Question 5 *b*)—

TABLE V

	I	II	III	IV		I	II	III	IV
All other departments	.....	.....	2	.....	Engineering	2	.....	.....	.....
None	2	2	10	.....	Sociology	1	.....	1	.....
History	9	3	6	.....	Biology	1	.....	4	.....
English	10	2	9	1	Agriculture	1	.....	.....	1
Economics	3	1	.....	.....	Chemistry	4	1	.....	.....
Law	4	1	.....	.....	Classics	.....	.....	1	.....
Medicine	2	.....	.....	1	No. institutions replying	16	6	23	1

Question 5 *c*)—

TABLE VI

	I	II	III	IV		I	II	III	IV
All other	1	.....	3	.....	Physics	1	1	3	.....
No other	1	.....	4	.....	Philology	1	1	1	.....
History	.....	1	5	.....	Music	3	.....	.....	.....
English	1	2	2	.....	Science	.....	.....	3	.....
Economics	6	1	1	.....	Art	.....	1	1	.....
Engineering	1	.....	.....	.....	Bible	.....	2	.....	.....
Sociology	2	.....	.....	.....	Scandinavian	1	1	.....	.....
Biology	4	1	2	.....	Psychology	1	.....	.....	.....
Agriculture	.....	.....	1	.....	Oriental languages	1	.....	.....	.....
Chemistry	3	.....	4	.....	Astronomy	1	.....	.....	.....
Classics	5	1	3	.....	Rhetoric	1	.....	.....	.....
Geology	3	.....	1	.....	No. institutions replying	16	6	23	1
Mathematics	1	.....	7	1					
German	6	.....	4	.....					
French	3	.....	5	.....					

These tables speak for themselves, and, considering the youth of departments of education generally, show that the library apportionments are comparatively, at any rate, generous.

Question 6—

Teachers College, Columbia, reports $2,500 for *a*), *b*), and *c*) combined and $700 for *d*) and *e*) combined; it did not give number of books. Returns are rather unsatisfactory. Only a few answered each question, many answered only a few questions, while a large number did not reply to any. Of Group I two replied to the first part of question *a*), one reporting $500, the other $105; four replied to the second part of the question, giving a total of 2,987 books, a range from 87 to 1,450, and an average of 747. Six answered the first part of *d*), reporting a total of $277, range $9–$65, average $46. There were no answers to *b*) and *c*).

Of Group II, two schools replied to *d*), $24 and $45, with 13 and 75 books. Also two only answered *e*)—$21, and 9 and 30 volumes respectively. None replied to *a*), *b*), or *c*).

Of group III, eight replied to the first part of *a*), giving a total of $510, range $10—$125, average $64. Five answered the second part, reporting a total of 259 books, range 29–250, average 52. Six answered the first part of *b*), giving a total of $274, range $4–$170, average $46. For the second part of *b*) one reported 0, four reported a total of 384 books, range 4–350, average 96. For the first part of *c*) three reported a total of $44, and 70 books, while five reported 0. Fourteen answered the first part of *d*), giving a total of $291, range $3–$63, average $21. Sixteen answered the second part of *d*), giving a total of 90 books, range 2–12, average 6. Two answered the first part of *e*), reporting $10 and $60 respectively. Six reported 0 for the number of books, while one reported 2 and three reported 1 each.

Of Group IV, one reported 0 for *c*), $5 and 20 books for *d*), and 3 books for *e*).

None of the other institutions gave any information for question 6. In answer to this question, as to others above, it is clear that the library budget for departments of education is not systematically itemized.

Question 7 *a*)—

TABLE VII

Percentage	I	II	III	IV	Percentage	I	II	III	IV
10	.....	.....	3	.....	75	1	.....	3	.....
15	.....	1	.....	.....	80	1	1	2	.....
20	.....	.....	3	.....	90	2	.....	.....	.....
33⅓	.....	.....	1	.....	100	8	4	14	1
50	1	1	3	1	Replies	13	7	30	2
60	.....	.....	1	.....					

Question 7 *b*)—

TABLE VIII

	I	II	III	IV
Number of replies	11	6	30	2
Total number	353	154	298	15
Range	8–49	13–55	2–30	6–9
Average	32	26	10	8
Above average	3	2	16	1
Below average	8	4	14	1

In Group I, two institutions answered *a*) but not *b*).

In Group II one school, and in Group III two schools, did this. Also in Group III two schools answered *b*) but not *a*).

Table VII for 7 *a*) shows the great dependence of work in education upon adequate library facilities, and Table VIII for 7 *b*) emphasizes the extent of this demand.

Question 8—

Only thirteen institutions reported having any kind of educational museum, while three schools stated they are just starting one. The oldest one was established in 1898.

These museums range from very small collections of textbook and pupils' work to large exhibits of books, pupils' work, school furniture and apparatus, and illustrative material for class use.

Most of the museum collections have been donated. The amounts invested range from nothing to several thousand dollars.

This problem of equipment, an innovation still, is scarcely receiving the attention it deserves.

Question 9—

All but seven institutions replied to *a*), and all the answers were affirmative.

One-half of the schools of Group I, three-fifths of Group II, and practically one-fifth of Group III reported having a laboratory for educational psychology and school hygiene.

Of the thirty-five institutions giving a negative answer to *c*) (1), seven replied to question *c*) (2) negatively and six affirmatively. There is nothing in these returns that fails to corroborate the findings in returns from the other investigation mentioned above but necessarily omitted from this report.

Question 9 *c*) (3) (*a*)—

TABLE IX

	I	II	III	IV
Number of replies	8	3	5	1
Total	$2,650	$770	$425	.....
Range	$50–$500	$20–$500	$20–$200	.....
Average	$331	$257	$85	.....
Above average	4	1	2	.....
Below average	4	2	3	.....

Question 9 *c*) (3) (*b*)—

TABLE X

	I	II	III	IV
Number of replies	9	1	4	1
Total	$3,475	$200	$420	.....
Range	$50–$1,200	.....	$20–$200	.....
Average	$386	.....	$105	.....
Above average	3	.....	1	.....
Below average	6	.....	3	.....

Of Group I, three schools reported that they give nothing for (3) (*a*) and five reported as giving nothing for (3) (*b*).

Of Group II, one school reported nothing for (3) (*a*), and two schools give nothing for (3) (*b*).

Of Group III, seven schools give nothing for (3) (*a*), and the same number give nothing for (3) (*b*).

All of the other institutions failed to make any reply whatever to these two questions.

Four schools in Group I, two in Group II, and two in Group III state that the amount they give for (3) (*a*) is a regular yearly allowance, while three schools in Group I and three in Group III give the amount as "special." Two institutions report making a regular and six a special appropriation for (3) (*a*) but failed to specify the amount.

Five schools in Group I and one in Group II make a regular appropriation for (*b*), while one in Group I and one in Group II, and two in Group III make special allowances. One school in Group I reports a regular allowance for (3) (*b*), and three schools in Group III make special allowance for (3) (*b*), but none of them specify the amount. Thus the table cannot show quite as favorable a condition as exists, although the best is still quite poor.

Question 10 (eight institutions of Group I reporting)—

TABLE XI

Institution	1	2	3	Number Weeks	4	5	Number Weeks	6	Grades	7	8	9
1	10	45	5	32	30	.....	.....	260	1–H.S. inc.	$10–$20	$7,000	.....
2	9	66	10	6	94	5	6	100	Special	0	.....	.....
3	3	.....	34	36	61	½	12	107	Kg–8th	36	.....	.....
4	5	90	5	18	0	.....	.....	175	H.S.	20	4,500	$1,000
5	14	24	5	18	34	5	18	170	El. and H.S.	4	.....	.....
6	7	8	4	36	95	1	12	89	3 prep.	63	3,300	.....
7	5	50	5	36	68	2	20	130	El. and H.S.	$5 El. and $14 H.S.	6,000	.....
8	7	38	.....	36	38	.....	36	110	H.S.	0	9,000	.....

Question 10 (three institutions reporting for Group II)—

TABLE XII

Institution	1	2	3	Number Weeks	4	5	Number Weeks	6	Grades	7	8	9
1	2	.....	10	72	.....	.....	36	.....	13	.....	.....	.....
2	12	4	5	18	40	3	9	500	H.S.	$110	.....	.....
3	72	300	1½ least	.....	.....	.....	.....	734	Kg. through H.S.	$135–$150–$200	$130,000	$20,000

Question 10 (nine institutions reporting for Group III)—

TABLE XIII

Institution	1	2	3	Number Weeks	4	5	Number Weeks	6	Grades	7	8	9
1	90	22	5	6	22	2	12	.....	1–12	0	.....	.....
	.....	332	1	38 El.	.....	.....	.....	2,077	El. and H.S.	0	.....	.....
	.....	332	3	19 H.S	.....	.....	.....	.....	.....	.....	.....	.....
2	4	30	2	12	107	2	48	196	8	$15	$3,000	.....
3	1	.....	.....	.....	100	4	10	25	1 and 2	.....	.....	.....
4	3	12	5	18	10	3	18	25	H.S.	20	.....	.....
5	2	85	5	18	85	1	.....	100	H.S.	50	.....	.....
6	9	30	5	10	60	1	20	190	1–10	.....	$7,000	$2,400
7	30	200	.....	5	200	10	36	300	Kg. through H.S.	40	.....	.....
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	4	40	5	18	50	5	18	150	1–12	.....	.....	.....

Question 10 *b*)—

TABLE XIV

PRACTICE TEACHING IN OTHER THAN PRACTICE SCHOOLS

	I	II	III	IV
City public schools	7	4	16	1
Academy of college	.....	.....	5	.....
College classes	1	.....	2	.....
Normal school	.....	.....	1	.....
Reporting no practice teaching	.....	1	5	.....

Question 10 *c*), (1) and (2) did not bring in satisfactory returns. Question 10 *d*) was not clear and hence answers are wholly unreliable, as were replies to 10 *e*), *f*), and *g*). It may be worth noting that replies to 10 *e*) ranged from 10 per cent to 90 per cent. The replies to 11 *a*) are unreliable. The question was meant to be read "number of courses in terms of semester units," whereas the interpretations were often otherwise made.

As to number of instructors in education—11 *b*)—sixteen institutions of Group I average 12, eight of these reporting some women in faculty, the proportion of women to the whole groups being 13 per cent. Nine institutions of Group II average 6, three of these reporting women in the faculty, the proportion of women being 10 per cent. Thirty-four institutions of Group III average 4, seventeen of these reporting women in the faculty, the proportion of women rising in this group to 36 per cent.

Answers to 11 *c*) show a striking decrease from the first two groups to the last two. Of twelve reporting in Group I the average is 11 such courses, for Group II, $10\frac{1}{2}$ for the five reporting, while the average for Group III drops to 5 for the twenty reporting. Only one reported in Group IV. As to the mere number of such courses the showing is good, indicating the co-operative attitude of the so-called academic departments.

The returns from 11 *d*) are still more enlightening as far as the standing of the Group is concerned, Group I averaging $7\frac{1}{2}$ hours "prerequisites" for ten institutions, Group II, 6 from four institutions, and Group III, $2\frac{1}{2}$ from thirteen institutions. The whole situation generally would seem to be that "Teachers'

Courses" in academic departments have not been fully developed nor clearly incorporated in the instructional and training program of the prospective teacher.

Replies to 11 *e*) show that for Group II the large majority have the Doctor's degree, 5 having A.B. only, 15 A.M. while 28 have the Ph.D. degree. The figures for Group I are 30 A.B. only, 32 A.M., and 57 Ph.D., and for Group III, 17 A.B. only, 25 A.M., and 42 Ph.D.

Answers to 11 *f*) are neither definite nor numerous and do not furnish reliable data. The salaries range from $900 to $5,000 per year.

Replies to 11 *g*) show that of those in academic departments who give "Teachers' Courses" those in Group I are arranged as follows: 23 A.B. only, 26 A.M., and 73 Ph.D.; Group II, 15 A.B., 6 A.M., and 8 Ph.D.; and Group III, 12 A.B., 42 A.M., and 50 Ph.D.

SUMMARY

This material is here published at length, despite the possibly slight value of much of it, as being all that is available and as being the property of the Society and all that its members collectively were willing to supply. In itself it does not seem to warrant any generalizations concerning the success or failure of a given institution in measuring up to a standard. It may contribute something, when various other sorts of material are in hand, to the question as to what may reasonably be expected of an institution of college grade which attempts to train teachers for a high grade of professional service.

The items of interest to those who wish to see adopted minimum standards for teacher-training colleges are productive endowment or annual income, the minimum number of departments representing the well-recognized fields of knowledge, the number of full-time professors, the library and laboratory equipments, the academic training of the instructional staff, the number and organization of the standardized elementary courses, the number of relatively advanced courses, the maximum teaching hours per week for instructors, maximum student hours per week, the semester hours required for graduation, the number of weeks in the college

year, the minimum amount of resident work necessary for a degree, the number of students per class, the units required for entrance, and the principles specified as governing these definite entrance units, the number of, and prerequisites for, "teacher courses," the status and equipment of the department of education including practice and observation facilities, and the professional work required of the prospective teachers. Doubtless there are other essential items. The data supplied above contribute something to many of the items here listed.[1]

[1] This is a trunkated article, the upper portion having been deleted by the editor without the author's knowledge. When it is published later the present discussion may be of more value, and some of the tacit assumptions clearer.

CREDIT GRANTED BY COLLEGES AND UNIVERSITIES TO GRADUATES OF NORMAL SCHOOLS

WILLIAM C. RUEDIGER
Professor of Educational Psychology and Dean of Teachers College,
George Washington University

In preparing this paper I have aimed, not to ventilate opinions upon what should or should not be the relations between colleges and normal schools, but to gather data upon the actual practice of granting advanced credit to graduates of normal schools by the various colleges and universities in this country and to arrange these data so as to be convenient and accessible to administrative officers and others interested in educational questions.

The data submitted I have obtained primarily in two ways: (1) from questionnaires and correspondence, and (2) from catalogues and bulletins.

At a meeting of your entire committee held at Richmond a year ago, it was thought advisable to investigate the phase of the problem falling to me by means of a questionnaire that would call for the actual practice in much detail and to submit this questionnaire, if possible, through the courtesy of the United States Bureau of Education, to the heads of departments of education in colleges and universities. It was thought that, because these heads of departments would practically all profit by the information called for when it was published, they would be willing to go to considerable trouble in answering the questionnaire. I therefore prepared such a questionnaire, and, after having it criticized by eight different members of this society, submitted the revised form to the United States Bureau of Education with a request for the franking privilege. This request was readily and courteously granted by Commissioner Claxton, who had the questionnaire duplicated and sent to the heads of departments of education in colleges and universities—approximately 290 in number.

This was last May. By November 1, when I got around to checking up the returns, I found that 55 replies had been received

and that these included only 16 of the 76 American colleges which have members in this society. I therefore prepared a briefer questionnaire, calling only for the number of units required for a degree, the number of units of advanced credit allowed to graduates of normal schools, variations from this number, and the number of normal graduates that matriculated in 1913–14. Copies of this questionnaire I mailed to the remaining 60 colleges having members in this society, on November 3. By December 1, 46 of these had replied, leaving only 14 of the 76 unaccounted for. The chances are good, however, that those 14 could contribute little to the desired data, for they are nearly all colleges that do not receive normal graduates in any considerable numbers.

The data that I have succeeded in bringing together I have arranged under three heads: (1) a table giving in a condensed form all the information that could be stated numerically; (2) descriptive statements of the relations of colleges to normal schools; (3) credit granted to graduates of particular normal schools by certain colleges.

Table I contains only 41 schools. These are the only ones from which information of sufficient definiteness to be stated numerically was obtained. The number of semester hours required for a degree varies all the way from 118 (University of Kentucky) to 136 (University of Washington). But when more than 120 semester hours are required it appears to be generally true that a considerable share of the excess is covered by physical training and military drill. There appears to be a tendency, not always evident from the table, however, to require a larger number of units for the degree in education than for the degree alone. Washington State, Utah, Missouri, and George Washington may be cited as examples. This is in harmony with the general tendency to require stiffer programs in professional than in liberal-culture schools. When the professional work in teachers' courses is recognized by a diploma in education, rather than by the appendage "in education" after the degree, a number of units greater than that required for the degree alone would seem logically to be demanded. Otherwise two documents would be obtained for the

usual price of one, with the inference that the degree at least is not of par value.

In coming to the next column of the table, the semester hours of advanced credit granted to normal graduates, it should be borne in mind that graduates of standard normal schools are referred to. A standard normal school is one whose course of study is based upon a recognized four-year high school or its equivalent and extends over at least two years.

Dividing the 46 instances of advanced credit granted to normal graduates recorded in the table into three groups, we find, counting the maximum in each case, that 7 grant from 30 to 40 semester hours, 9 from 41 to 50 semester hours, and 30 from 51 to 65. In this count "2 years" is taken to mean about 60 semester hours, and it should be noted that a larger number than 60 semester hours means in each case only half the college course. There is, therefore, a distinct tendency to grant approximately two years of advanced credit to graduates of standard normal schools. Even when as small a number as 45 semester hours is granted, the capable student may still finish in two years.

These credits, however, are not always granted equally in all courses. There appears to be a tendency to grant more credit to normal graduates toward a professional degree in education than toward the straight A.B. degree. George Washington, Kentucky, Maine, Minnesota, Washington, and no doubt others, exemplify this tendency. When the professional nature of the Ph.B. as granted by Wisconsin is recognized, Wisconsin also falls into this group. New York University, where 64 units of advanced credit are granted in Washington Square College and only 30 in the School of Pedagogy, shows an opposite tendency. The colleges that grant but one year, or about 30 units of advanced credit, appear to proceed on the now very general rule of allowing one year of professional work to count toward an academic degree.

That normal graduates in considerable numbers matriculate in college is indicated by the last column of the table. The figures given should be the number of *matriculates* in 1913–14, but this is perhaps not always the case. In a number of instances I have

TABLE I

Location	School	Degree	Sem. Hrs. Required for Degree	Sem. Hrs. Granted Normal Graduates	No. Normal Graduates Received 1913–14
Alabama—					
University	Univ. of Alabama	A.B., B.S.	120	48	15
California—					
Berkeley	Univ. of California	A.B., B.S.	124	32–48	64
Los Angeles	Univ. of So. California	A.B.+H.S.T.Rec.	120 (?)	44 (?)	72
Stanford University	Leland Stanford Jr. Univ.	A.B.	120	45	50
Colorado—					
Boulder	Univ. of Colorado	A.B.	120	18–55	1
Colorado Springs	Colorado Coll.	A.B.	120	45	3
District of Columbia—					
Washington	George Washington Univ.	A.B.+T.Dip.	124	48	40
		A.B.	120	36	18
Washington	Howard Univ.	A.B., B.S.+T.Dip.	120	30	2
		A.B., B.S.	120	30	2
Idaho—					
Moscow	Univ. of Idaho	A.B., B.S.	130	2 yrs.	3
Illinois—					
Chicago	Univ. of Chicago	A.B., B.S.	120 (36mj.)	53⅓ (16mj.)	175
Evanston	Northwestern Univ.	A.B., B.S.	120	50–56	16
Normal	State Normal Univ.	B.Ed.	125	65	10
Urbana	Univ. of Illinois	A.B., B.S.	130	60	41
Indiana—					
Bloomington	Univ. of Indiana	A.B.	122	2 yrs.	.....

Iowa—					
Des Moines	Drake Univ.	A.B.	120	54–60	10
Iowa City	Univ. of Iowa	A.B.	120	60	18
Kentucky—					
Lexington	Univ. of Ky.	A.B.	118	Up to 50	15
Maine—					
Orono	Univ. of Maine	B.Pd.	125	55	3
Michigan—					
Ann Arbor	Univ. of Mich.	A.B.	120	40–56	96
Kalamazoo	Kalamazoo Coll.	A.B., B.S.	122	56	.....
Minnesota—					
Minneapolis	Univ. of Minn.	A.B. and B.S.	120	30	.....
		A.B. in Ed.	120	60	50
Northfield	St. Olaf Coll.	A.B.	120	60	1
Missouri—					
Columbia	Univ. of Mo.	A.B. or B.S in Ed.	132	2 yrs.	30
St. Louis	Washington Univ.	A.B.	120	54	25
Nebraska—					
Lincoln	Univ. of Neb.	A.B., B.S.	125	55	50
New York—					
Brooklyn	Adelphi Coll.	A.B.	120	34	.....
New York	N.Y. Univ. (Coll.)	A.B. and B.S.	128	64	108
	(Sch. of Ped.)	B.S. in Ped.	120	30	158
Syracuse	Syracuse Univ.	A.B.	120	30	20
North Dakota—					
Grand Forks	Univ. of N.Dak.	A.B.	125	60	8
		A.B.+Dip.	125	60	10

TABLE I—*Continued*

Location	School	Degree	Sem. Hrs. Required for Degree	Sem. Hrs. Granted Normal Graduates	No. Normal Graduates Received 1913–14
Ohio—					
Athens	State Normal Coll.	A.B., B.S.	120	2 yrs.	10
Oregon—					
Eugene	Univ. of Oregon	A.B.	120	45	15
Tennessee—					
Knoxville	Univ. of Tenn.	A.B.	120	60	1
Nashville	Geo. Peabody Coll.	B.S.	124	62	.....
Texas—					
Austin	Univ. of Texas	A.B.	120	60	44
Georgetown	Southwestern Univ.	A.B.	(36½ mj.)	(18½ mj.)	8
Utah—					
Salt Lake City	Univ. of Utah	A.B.	122	2 yrs.	.....
		B.S. in Ed.	126	2 yrs.	.....
Washington—					
Seattle	Univ. of Wash.	B.A.	128	.....	.....
		B.A. or B. S. in Ed.	136	56	45
West Virginia—					
Morgantown	W.Va. Univ.	A.B., B.S.	128	40–50	45
Wisconsin—					
Appleton	Lawrence Coll.	A.B.	128	2 yrs.	6
Madison	Univ. of Wis.	A.B., Ph.B.	120	60	45
Ripon	Ripon Coll.	A.B.	124	60	2
Wyoming—					
Laramie	Univ. of Wyoming	A.B. in Ed.	126	62	10

reason to think that the figures mean the total number of normal graduates enrolled during 1913–14.

The descriptive statements that follow the table have been gathered from the letters and supplementary remarks that come with the questionnaire returns and from college catalogues and bulletins.

I found time to examine only 102 catalogues or bulletins, selecting those colleges only that are likely to receive normal graduates, but of these only 21 contained some statement of the credit granted to graduates of normal schools. These, as might be expected, were of all degrees of definiteness. It is clear that many of the colleges are not yet ready to commit themselves to a definite policy in respect to this matter and are still groping their way.

The last section—credit granted to graduates of particular normal schools—is not nearly so complete as I had hoped that my data would permit me to make it. Complete information here would obviously be of great value to the administrative officers in colleges that receive normal graduates from all parts of the country. But even now the information given here, joined with that of the preceding sections, may have its effect in bringing about more uniformity. It appears to be true that a graduate of some particular normal school might by different colleges be allowed credit ranging all the way from unconditioned entrance to graduate standing.

DESCRIPTIVE STATEMENTS

ALABAMA—*University of Alabama.* Graduates of the four Class A normal schools in Alabama are allowed 24 hours toward the A.B. or B.S. degree, 60 hours being required for graduation.

The 1914 catalogue, p. 64, reads: "Graduates of the normal schools at Florence, Jacksonville, Livingston, and Troy . . . . may be admitted to advanced standing."

CALIFORNIA—*University of California.* "We give from a year to a year and a half (from 32 to 48 S.H.) of advanced standing to graduates of the two-year normal course following a four-year high-school course" (Sutton).

The 1914 catalogue, p. 93, reads: "Graduates of the California state normal schools who are also graduates of accredited high schools may, under certain conditions, receive advanced credit in the University amounting to 48 units of the 64 units required for the Junior certificate."

Leland Stanford Junior University allows 45 units out of 120 to a graduate of a standard normal school who is also a graduate of a four-year high school and makes reasonably good grades; otherwise 30 (Cubberley).

The 1914 catalogue, p. 64, reads: "Recommended graduates of approved state normal schools where the normal training has been preceded by a full four years' high-school course, or where high-school and normal-school course together cover six years' work, may ordinarily be granted an advanced credit of 30 units."

University of Southern California. Graduates of state normal schools who are also graduates of accredited high schools may receive tentative advanced credit amounting to from 30 to 45 units (Cat. 1914, p. 41).

COLORADO—*University of Colorado.* "Each case is made a special case, the amount of 'advanced standing' granted depending upon how far the requirements for our A.B. have been satisfied. The credit granted has varied from 18 to 55 semester hours" (Thompson).

Colorado College. "We take each individual record and check off the 16 credits required for entrance (H.S. record is included if applicant has gone to H.S.), then count such courses as in our judgment are of college rank. We grant no advanced standing for mere review and teaching courses in the common branches. We never give standing on mere record of graduation, but require statements of work, hours, texts, grades, instructor, etc."

DISTRICT OF COLUMBIA—*George Washington University.* Graduates of standard normal schools are allowed 48 S.H. of advanced credit in Teachers College, or one year in Columbian College.

Howard University. The faculty of the College of Arts and Sciences has voted to allow graduates of normal school No. 2 (Washington, D.C.) one year's credit toward the degree of A.B. or B.S.

FLORIDA—*State College for Women.* Graduates from the normal school with the degree of Licentiate of Instruction will be given Junior standing in the College of Arts and Sciences (Cat. 1914, p. 29).

IDAHO—*University of Idaho.* By arrangement with the state normal schools at Lewiston and Albion and the Academy of Idaho at Pocatello, students from these institutions will be admitted into the University without examination and receive credit for all work which is the equivalent of courses offered by the University either for admission or for a degree (Cat. 1914, p. 53).

ILLINOIS—*Northwestern University.* "In general it may be said that a student who graduates from a first-class high school, thus completing full entrance requirements to college, and who later graduates from the regular two-year course of a good normal school, is given from 50–56 semester hours of credit in college. I should add that students who apply for our degree are expected to complete our entrance requirements and also the required subjects for the degree. Of course in special cases some slight modification in the requirements may be made, but ordinarily when a degree is given it

means that the student has completed essentially the courses laid down in our curriculum" (Grant).

University of Chicago. "The standards of normal schools vary so widely that there is no fixed amount of credit in the colleges of the University of Chicago which is given for graduation from a normal, nor is the amount of credit given to two students coming from the same institution necessarily the same. Graduates of the best normal schools, which have established a two years' course, based upon 15 secondary school units, may hope to secure, on transfer to the colleges of the University of Chicago, a maximum of 16 of the 36 majors required for a baccalaureate degree" (Payne).

University of Illinois. "(*a*) Students who have completed the equivalent of the entrance requirements of the University before entering a state normal school, and have been graduated from the two years' professional course, are given 60 hours of advanced standing. (*b*) Students who enter normal schools without completing the equivalent of the entrance requirements of the University are allowed entrance credits for their normal-school work on the same basis as that on which they are given credit for similar subjects from accredited high schools, and may receive advanced standing on any work that may remain after the entrance requirements have been satisfied. Such students, after having completed a full year of work at this University with an average grade of 85 per cent or over, may secure a reconsideration of their normal-school work and receive additional credit; but in no case shall the total amount of advanced credit given for such normal-school work exceed 30 semester hours" (Regulations).

INDIANA—*University of Indiana.* "Each student is treated individually and receives credit according to the subjects he has taken and the value set upon his work in the different subjects. Graduates of the State Normal usually receive about two years' credit on the college course of four years" (Black).

The 1913 catalogue, p. 84, reads: "There is no definite standing fixed for all graduates of any normal-school course, but the standing of such graduates is determined for each individual student in accordance with the facts of his courses attested by acceptable credentials."

IOWA—*Drake University.* "For work done in standard state normal schools we usually grant from 54 to 60 units of the 120 required for the baccalaureate degree. However, you understand that the credit is always based upon the actual work offered rather than upon the fact of graduation" (Barr).

University of Iowa. "On receiving graduates of normal schools, we first examine their entrance certificates. If they are graduates of accredited high schools, we allow as much college credit for the normal work as is allowed by the state university of the state from which the candidates come. In our own state, we no longer have a normal school, as such, the one normal school formerly maintained having been made a teachers' college. A very large proportion of students coming to us in recent years from that institution have

had one, two, three, or four years of regular college work in advance of the equivalent of four years of high-school work, and to such we give full credit, year for year . Some of the students coming from the Iowa State Teachers College have completed their two-year course above the high-school work required for a state certificate. To those we are able to allow, usually, 60 semester hours of college credit and, in addition to that, we can usually allow 4 semester hours for physical training, classifying such students as Juniors in the College of Liberal Arts. They are then required to complete 60 semester hours in this institution for the B.A. degree" (Ensign).

Cornell College. Graduates from reputable normal schools are given credit for all work presented in so far as it meets college degree requirements (Cat. 1914).

KANSAS—*University of Kansas.* "If the normal-school graduates have the degree Bachelor of Arts, they may be, but are not likely to be, given credit for the full college course and admitted to the Graduate School. They are likely to be measured up short of our A.B. requirements by about 30 hours and required to spend at least one year (30 hours) in resident work for the University A.B. degree. No normal-school graduates with other than the Bachelor's degree have matriculated in the University of Kansas" (Olin).

Ottawa University. "We get so few normal graduates that the question of credits is in every case decided on the basis of the work offered. Two years are usually required for graduation" (Foster).

KENTUCKY—*University of Kentucky.* "A graduate of a high school who spends two additional years in the state normal school can be given Junior credit in the State University in the Department of Education. Graduates of the normal schools who entered them from the eighth grade can make very little more than Freshman entrance in the University and frequently no more" (Rhoads).

LOUISIANA—*Louisiana State University.* Students from . . . . the State Normal School and other institutions giving work wholly or partly of college grade, will, after having met all entrance requirements, be given such credit in college work as may be justified by their credentials (Cat. 1914, p. 35).

MAINE—*University of Maine.* "We give no credit at present for normal graduation in other curricula than that leading to degree of B.Pd. For this we admit to Junior standing, requiring 70 semester hours for graduation, at least 12 of which shall be in education. Candidates must have had at least one year of experience to be eligible for admission."

MASSACHUSETTS—*Harvard University.* "Our general custom in admitting to advanced standing is not to assign definite credit to persons thus admitted, nor to express their standing in Harvard College in terms of 'credit' for specific courses of instruction taken elsewhere. Our common practice is to require persons who come to us from other institutions higher than secondary schools to register during their first year of residence as Unclassified Students, thereby

giving us an opportunity to test the quality of their scholarship. At the end of the first year in Harvard, we review each case, and give the student a standing not expressed in terms of credit for work done in some other institution but in terms of work to be done in Harvard. We treat each case individually" (Hart).

Mount Holyoke College. "We very seldom give advanced credit for work which is completed in a normal school, since the courses in these schools do not correspond to those offered by us. If such credit were desired, we would ask that it be secured by examination" (Registrar).

Wellesley. There is no rule. Examinations may be taken but this is not encouraged (Norton).

MICHIGAN—*University of Michigan.* Allows graduates of Michigan normal schools and less than half a dozen others 40–56 S.H.; to others 30 (Breed).

The 1914 catalogue, p. 113, reads: "A graduate of one of the stronger courses of an approved normal school who brings an official certificate explicitly describing the extent and character of his work may be given, without examination, such advanced standing as is justified by the course he has completed."

MINNESOTA—*University of Minnesota.* Allowance of 60 S.H. for two-year normal course beyond H.S. Allowance of 42 S.H. for five-year normal course, including H.S. (James).

The July, 1914, Bulletin, p. 44, reads: "Graduates of the advanced graduate courses of a Minnesota state normal school are admitted to the College of Science, Literature, and the Arts with advanced standing equivalent to one year's credit. Graduates of such advanced courses are admitted to the College of Education with an allowance of 60 credits toward graduation. Individual graduates of the advanced Latin course (five-year) or the advanced English course (five-year) of a Minnesota state normal school who, on the basis of maturity and ability, present certificates of special fitness from the president of the normal school will be admitted with advanced standing equivalent to one year's credit. Graduates of such courses are admitted to the College of Education with an allowance of 42 credits toward graduation."

Carleton College. Graduates from the advanced courses in the Minnesota state normal schools will be given credit for a year of college work (Cat. 1914, p. 41).

St. Olaf College. Normal-school graduates are not sought, but when received are given Junior standing, or 60 S.H.

Hamline University. Students who have completed the "Advanced Graduate Course" at a Minnesota state normal school will be given one year's credit in college work (Cat. 1914, p. 13).

MISSISSIPPI—*University of Mississippi.* The problem of credit has not arisen as the state normal school has been running only two years.

NEW HAMPSHIRE—*Dartmouth College.* "Work done in approved normal schools is accredited in so far as it duplicates courses offered in Dartmouth.

Each case is decided individually. Examination for advanced credit may be taken" (Bingham).

NEW YORK—*Alfred University*. "The head of each department grants such credit for subjects in his department as seems to him a fair equivalent for the work done as measured by our standards."

Adelphi College. Graduates of a normal or training school for teachers in the state of New York, maintaining a two years' training course, under the supervision of the State Commissioner of Education or of the New York City Superintendent of Public Instruction, and who are also graduates of a four-year course, or its equivalent, in a recognized high school, may receive a credit of 34 (out of 120) points (Cat. 1914, p. 26).

Hamilton College. "We will take certification from normal schools just in so far as it covers our entrance requirements or studies of the course here" (President).

Cornell University. "Normal graduates are given credit by the various departments for the work they have actually done. This credit rarely amounts to more than one year in all, on account of the brief and fragmentary nature of the normal-school courses in New York" (DeGarmo).

New York University. "Normal-school graduates are eligible to enter two divisions of New York University, namely, the Washington Square College, and the Undergraduate Department of the School of Pedagogy. The work in the Washington Square College is primarily cultural; that in the School of Pedagogy is primarily professional. Graduates of normal schools that offer a two-year course are admitted to the Washington Square College with 64 points of advanced credit of the 128 points required for the degree. This same class of normal-school graduates, if they enter the Undergraduate Department of the School of Pedagogy, would be allowed 15 hours of advanced credit of the 60 hours required for the degree. You will see, therefore, that graduates from a two-year normal-school course would obtain the degree in the Washington Square College in approximately two years, while it would take three years to obtain the degree in the Undergraduate Department of the School of Pedagogy" (Secretary).

The 1914 catalogue, pp. 80–88, reads: "*Washington Square College*. Graduates of approved state normal schools of Class II . . . . will be admitted on advanced standing with 45 hours to complete for the degree. Graduates of approved state normal schools of Class I will be admitted on advanced standing with 30 hours to complete for the degree.

School of Pedagogy. "Teachers of experience and graduates of approved normal schools are admitted as special students and upon satisfactory completion of the course receive a certificate for the work done."

Teachers College, Columbia University. "Graduates of an approved normal or training school who have had at least two years' experience in teaching may be admitted to the School of Education to pursue courses, subject to the approval of advisers in elementary and kindergarten education. Such

students are not permitted to specialize in other departments until they have demonstrated their ability in courses taken in Teachers College, although they may elect any courses which they are qualified to pursue in the Schools of Education and Practical Arts or in any other department of the University. In case the period of residence required for the Master's degree is two years or more, the student has the option of applying for the degree of Bachelor of Science in Education one year before the requirements for the Master's degree are completed" (T.C. Bull., March, 1914, p. 25).

NORTH CAROLINA—*University of North Carolina.* "We get candidates only from four-year normal schools and these are admitted to our higher classes, Junior and Senior. Of graduates from our state normal we require 30 S.H. for the A.B. To graduates of one or two strong normals, like East Texas Normal, we allow admission to our graduate school and find no difficulty" (Chase).

NORTH DAKOTA—*University of North Dakota.* "If graduated from an accredited H.S. before attending the normal school, students are given 30 S.H. a year for each year at the normal, if not, then 15 less" (Kennedy). (See Cat. 1914, p. 86.)

OREGON—*Reed College.* "Our credits are not figured in hours. We give a definite number of credits toward graduation for each course, varying according to the quality of work done in the course (units for graduation, 100). Each applicant for advanced credit is acted upon individually after at least a semester's work in Reed College has been completed" (Secretary).

OKLAHOMA—*University of Oklahoma.* Students who have completed work of college rank in the normal schools of Oklahoma are admitted to the University with advanced standing in the College of Arts and Sciences credited at the rate of 30 hours for the full year's work. Such credit will be given only for courses taken after the completion of 15 standard entrance units. Sixty hours is the maximum amount of credit that will be given to graduates of normal schools, except that additional credit not to exceed 4 hours in physical training may be given (Cat. 1914, p. 62).

RHODE ISLAND—*Brown University.* "There is no regulation about giving credit for normal-school work. Each case is considered individually" (Jacobs).

TENNESSEE—*University of Tennessee.* Graduates of the state normal schools are allowed two years or 60 term-hour credits toward the B.A. degree (Regulations).

TEXAS—*University of Texas.* "The number of units required of normal-school graduates for the A.B. degree varies according to the normal, and also according to the individual seeking credit for work done in a normal. Graduates of Texas normals are accorded Junior standing, but each case is settled upon its own merits. In order to meet all the requirements for graduation it will sometimes happen that a normal-school graduate will have to complete more than ten courses in the University of Texas in order to obtain the A.B. degree" (Sutton). (See Cat. 1914, p. 66.)

UTAH—*University of Utah.* "The State Normal School was established by law as a division of the University of Utah. . . . . The name State Normal was later changed to State School of Education and its courses organized to lead to the degrees A.B., B.S. in Education, and A.M. Courses leading to B.S. in Education are so arranged that the first two years lead to either a teacher's grammar-grade diploma or a teacher's kindergarten-primary diploma, and all of this work receives full credit toward the B.S. degree. Graduates from these first two years, called the Junior College, who desire the A.B. degree, do not receive credit toward this degree for courses in the methods of teaching elementary-school subjects. They may, however, offer as much as 30 hours in other technical educational subjects, such as practice teaching (8 hours), methods of teaching high-school subjects, and educational administration" (Bennison).

VERMONT—*Middlebury College.* "New York state normal schools will have their credits accepted on the same basis as do the approved high schools of that state. If a student is admitted, then for two years of normal-school course credits he may be given Sophomore rank (90 points more out of the total 120 will be required for graduation). For three years of normal-school credits he may be given Junior rank" (Cresse).

VIRGINIA—*Randolph-Macon Woman's College.* "Direct credit is not given on certificates from the usual normal school or college. Students coming from such institutions are permitted, upon the judgment of the professors concerned, to take courses subsequent to and dependent upon courses pursued at the normal. Satisfactory completion of courses taken here then entitles the student to credit on certified courses, the value being estimated by the professors in charge."

WASHINGTON—*University of Washington.* "Graduates from the advanced course of the Washington state normal schools will be admitted to the School of Education with provisional Junior standing. The remaining work necessary to full Junior standing may be made up after admission to the School of Education. Graduates from the advanced courses of other state normal schools will ordinarily receive the same standing as they would be accorded in the schools of education of their own state universities. Graduates of approved normal schools receive 48 scholastic credits plus 8 in physical training" (Bull. 1914, p. 14).

WISCONSIN—*University of Wisconsin.* "Graduates of the Wisconsin state normal schools who desire to become candidates for degrees will be given credits as follows: A, Bachelor of Arts: Graduates of the present German and Latin courses of the state normal schools will be granted 60 credits toward the A.B. degree, under the following conditions: (*a*) All such students must absolve all the University requirements for this degree. (*b*) Before entering the course of the normal school the full equivalent of a four-year standard high-school course . . . . should be completed. B, Bachelor of Philosophy: The course leading to the degree of Ph.B. is designed especially for normal-

school graduates, requires 60 credits of advanced instruction in education and philosophy, and in history, languages, and science, both required and elective. To this course graduates of the advanced courses of the Wisconsin state normal schools will be admitted, with the rank of Junior, on the presentation of a certificate of graduation and a certified statement of their normal-school standings. Graduates and students of normal schools of other states will be admitted to the University with such advanced credit as their previous work entitles them to; except that no credit will be given greater in amount than that granted by the state university of that state to the school in question" (Cat. 1914, pp. 120 f.).

Beloit (Cat. 1914, p. 75), *Lawrence* (Cat. 1913, p. 124), and *Ripon* (Cat. 1913, p. 18) colleges also give Junior rank to graduates of Wisconsin state normal schools, the regulations being much like those of the state university.

CREDIT GRANTED TO GRADUATES OF PARTICULAR NORMAL SCHOOLS

ALABAMA. Graduates of the four Class A normal schools in Alabama are allowed 24 out of 60 hours toward the A.B. and B.S. degrees by the University of Alabama. These schools are Florence, Jacksonville, Livingston, and Troy.

COLORADO—*State Teachers College.* A graduate (from the two-year course) was granted 45 semester hours toward A.B. by Colorado College.

DISTRICT OF COLUMBIA—*Normal School No. 1* (white). Graduates granted 48 S.H. by Teachers College or 36 S.H. by Columbian College, George Washington University.

Normal School No. 2 (colored). Graduates granted 30 S.H. by Howard University.

IDAHO—*Albion* and *Lewiston* normal-school graduates granted two years' college credit by University of Idaho.

ILLINOIS—*State Normal School* graduates granted 60 S.H. by State University if graduates of approved secondary school.

INDIANA—*State Normal.* Graduates usually given two years' credit by state university.

KANSAS—*Manual Training Normal.* One graduate from four-year degree course granted 125 S.H. out of 130 by University of Illinois.

MAINE. State Normal School graduates admitted as Juniors to course leading to B.Pd. Seventy S.H. required for graduation.

MICHIGAN. Graduates of *State Normal School* granted 60 S.H. by University of Illinois; 40–56 S.H. by University of Michigan.

MINNESOTA. Graduates of two-year normal course beyond H.S. are allowed 60 S.H.; graduates of five-year course including H.S., 42 S.H. toward A.B. in Education by state university.

Winona Normal graduate allowed 56 S.H. at Kalamazoo College.

MISSOURI—*Harris Teachers College.* Graduates allowed 54 S.H. at Washington University.

NEW YORK—*Courtland Normal.* Graduates given approximately one year's credit at Colgate University.

New York City Training Schools for Teachers. Graduates allowed 34 S.H. toward A.B. degree by Adelphi College.

NORTH CAROLINA—*State Normal* graduates given Senior standing by state university.

PENNSYLVANIA—*Westchester Normal.* Graduates given approximately one year's credit at Colgate University.

Two *California, Pa., Normal* graduates were given respectively 24 and 28 S.H. at the University of Pittsburgh.

Pennsylvania Normal graduates are usually given unconditioned entrance by Wilson College and by Juniata College.

SOUTH CAROLINA—*Winthrop Normal College.* Graduates admitted to graduate classes by University of South Carolina.

TEXAS—Graduates of *state normal schools* usually given Junior standing by University of Texas.

Sam Houston Normal. One graduate was granted Senior standing, about 90 semester hours, by the University of Colorado.

East Texas Normal. Graduates admitted to graduate school by University of North Carolina.

WASHINGTON—*State Normal* graduates are given 48 S.H. plus 8 in physical training by state university.

WEST VIRGINIA—*State Normal* graduates given 40–50 S.H. credit on the 128 required for the degree by West Virginia University.

WISCONSIN—*Wisconsin State Normal School* graduates are given 60 S.H. or Junior rank by the State University, Beloit College, Lawrence College, and Ripon College.

RECOGNITION GIVEN COLLEGE GRADUATES IN THE GRANTING OF TEACHERS' CERTIFICATES[1]

HARLAN UPDEGRAFF
Professor of Educational Administration, University of Pennsylvania

But two states give absolutely no recognition to credits obtained in college courses—Alabama and Mississippi. In Connecticut the recognition is so slight as to make it negligible. An applicant for a supervisor's certificate who is a college graduate is excused from passing an examination in the subjects required for the elementary certificate. In Indiana the completion of a college course is of no avail until 30 or 48 months' experience has been gained, and 10 of these must be in that state. Even then the applicant must pass an examination in professional subjects, or in professional and academic subjects, according to the certificate he seeks. He must also be the holder of a 60-months' license or equivalent. Each of the other forty-four states grants substantial recognition to the graduates of approved colleges who have had no experience in teaching—at least to graduates of colleges within its own territory.

But the college graduate without experience who has not taken the required work in education or in education and allied subjects does not fare well at the hands of the certificating authorities. In but five states in the Union is it possible for such a person to receive first a temporary and later a permanent certificate upon the basis of his preparation and experience without having at some time to pass an examination in professional subjects or to take professional courses in approved educational institutions. These states are Delaware, Iowa, Maine, South Carolina, and Vermont. This would be true of Washington also, were it not for the examination required in the *Washington State Manual.* In four other states—New York, New Jersey, Oregon, and Utah—such a graduate can receive the temporary license by presenting

[1] The data for this paper were obtained from the latest laws and regulations of the education departments of the various states, and from replies to questionnaires sent to the state education officers and to the heads of the departments of education in practically all the universities and colleges in each of the states.

his credits and the recommendation of the college authorities, but he must at the end of a few years obtain credits in the professional subjects or pass them off by examination. On the other hand, the difficulty of such a graduate in three other states is in securing the first certificate. Both Idaho and Montana have certificates issued upon the basis of college graduation without credits in professional subjects, but which require two years' experience, and in the latter state this experience must have been gained after college graduation and in the former within the state itself; while in Texas the conditions are the same except that the requirement is three years' experience without other limitation. A college graduate without professional preparation or experience must, according to the laws and rules in these states, pass an examination for a lower grade of certificate for which experience is not required. The last three states, added to the five above in which no examination for the first certificate is necessary, and the state of Washington make nine states in which it is possible to obtain permanent certificates based upon college graduation without having to pursue professional studies or to pass examinations in such subjects.

There are then thirty-six states, including Indiana mentioned in the first paragraph above, in which the permanent certificate based upon college graduation requires credits in professional study earned either in educational institutions or by state examination. But of the twelve that are thus excluded six have also one or more certificates based upon college graduation involving courses in education, in addition to the certificate or certificates not requiring professional subjects. There are thus only six states which practically ignore in their system of certification that important body of teachers who have taken professional courses as a part of, or in addition to, their college courses. These states are Alabama, Connecticut, Mississippi, Delaware, South Carolina, and Vermont; the last three, however, having certificates for college graduates without professional preparation.

Of the forty-two states which have certificates covering college graduation and courses or study in education all except Indiana accept credits from approved colleges in academic subjects (this is true also of the three states which credit only academic subjects); and all but Indiana, New Hampshire, North Carolina, and

Louisiana (certain institutions specified in the law of the last state excepted) accept credits in the professional subjects. There are then forty-one states in which graduates of colleges in that state who have met the requirements—academic subjects only in three states, both academic and professional subjects in twenty-eight states, and either academic alone, or academic and professional together in ten states (two or three years' experience required with the former in three states)—can receive certificates to teach without examination. The states in which certificates cannot thus be

TABLE I

RECOGNITION GIVEN COLLEGE CREDITS IN ACADEMIC AND PROFESSIONAL SUBJECTS

I. States giving no recognition to college credits: Alabama, Mississippi, Connecticut, Indiana[1]	4
II. States giving recognition but requiring academic subjects only: Delaware, South Carolina, Vermont	3
III. States giving recognition to and requiring both academic and professional subjects: Arizona, Arkansas, California, Colorado, Florida, Georgia, Illinois, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, Tennessee, Virginia, West Virginia, Wisconsin, Wyoming	28
IV. States giving recognition to academic subjects but requiring examination in professional subjects: Louisiana,[2] New Hampshire, North Carolina	3
V. States giving recognition to both classes of subjects and having two certificates—one requiring academic subjects only and one requiring both academic and professional subjects: Idaho, Iowa, Maine, Montana, New Jersey, New York, Oregon, Texas, Utah, Washington[3]	10
1. States in which professional credits must be gained by those holding first type of certificate before permanent certificate is obtained: New Jersey, New York, Oregon, Utah	4
2. States in which first type of certificate cannot be obtained until after experience in teaching (considered as equivalent of professional training): Idaho, Montana, Texas	3

[1] This state has two certificates for college graduates, but examination is required in both academic and professional subjects. See text.

[2] Graduates of specified institutions do not have to take examination.

[3] Examination in *Washington State Manual* required of applicants for first type of certificate.

obtained (not including Washington) are Alabama, Mississippi, Connecticut, Indiana, New Hampshire, North Carolina, and Louisiana. Table I will clarify as well as amplify the above statements.

NUMBER OF CREDITS REQUIRED

Graduation from a four-year college course requiring for entrance the completion of a four-year high-school course is the almost universal requirement for the certificates requiring credits in academic subjects only and for the certificates requiring both academic and professional subjects. The exceptions to this are, California, which requires one year's graduate study in an approved university; Arkansas, which requires but 68 semester hours; and New Mexico, where credits in specified subjects, with or without college graduation, are the requirement. In certain states the standard fixed is that of the state university, in some of which cases the number of hours is somewhat above the normal number of 120 semester hours, but it is doubtful whether in practice the private colleges in the state are obliged to meet these exact amounts. Thus, with the exception of New Mexico, the college student is required to do the same amount of work for either certificate, unless it be that practice teaching or school management is not accepted for college graduation but is required for the certificate. The difference between the preparation required for the certificates based on academic subjects only and those based on both academic and professional subjects is in the amount of specialization in professional subjects within the fixed courses of approximately 120 semester hours, not in the length of time or number of credits required for the certificates.[1]

It is doubtful, however, whether the standard number of credits is exacted in all cases in certain of the states. It is probable that in certain cases it is an ideal standard which the department of education is striving to reach, rather than an actual standard exacted invariably in all or practically all cases.

REQUIREMENTS IN ACADEMIC SUBJECTS

The prescription of courses in academic subjects for a certificate based upon college graduation occurs in only a few states and in

[1] Table II, which gives the amount of total credits required for certificates that cover professional subjects, contains practically all the variations from the common standard of 120 hours.

those states it is usually possible to secure substitutions, so that certification presents little difficulty in this connection.

REQUIREMENTS IN PROFESSIONAL SUBJECTS

Table II gives the requirements of the initial certificates issued without examination to college graduates with no experience but with credits in education or in education and allied subjects. It does not contain the requirements for the later certificates obtained by them. New Hampshire and North Carolina are omitted because these states do not accept credits in professional subjects, although they do require an examination in them; likewise Indiana, for similar reasons. Neither does the table include certificates issued to graduates of junior colleges nor those who have done equivalent work, except in the case of Illinois, where the same certificate is issued for both, although there is a difference in the way in which it is obtained, examination being required in the case of the graduates of the junior colleges, and except also in the case of Arkansas.

AMOUNT OF CREDITS

The amount of professional credits required is most usually stated in semester hours, in recitation hours, or in proportion of time. In Table II the amounts are given as stated, except where there is a gain in definiteness, in making a different statement. In many of the states subjects that are not in the field of education are placed on the same plane as subjects in education and no distinction is made between them. For this reason it is impossible to make any statement as to the number of hours required in education alone. Hence the necessity of the third and fourth columns in the table. No entry in the third column signifies that no credits are accepted in the so-called allied subjects—psychology, sociology, ethics, logic, etc.—as part of the technical preparation for teaching. The amounts in the fifth column—observation and practice teaching—are in all cases parts of the amounts in one of the two columns to the left.

Tables III and IV give the amounts of professional subjects required by the various states in semester hours. In many of the states there is strong reason to believe that the hours stated are exacted in every case, while in others the information gathered

TABLE II

ACADEMIC AND PROFESSIONAL CREDITS REQUIRED FOR CERTIFICATES ISSUED TO GRADUATES OF APPROVED COLLEGES WHO HAVE HAD NO EXPERIENCE IN TEACHING

States	Total Credits	In Education and Allied Subjects	In Education Alone	In Observation and Practice Teaching	Additional Information—Explanations
Alabama	.....	.....	.....	.....	
Arizona	120 hrs.	.....	1 year	None	
Arkansas	68 hrs.	24 hrs.	21 hrs.	2 hrs. observation	Requirements for L.I. degree in University of Arkansas
California	120 hrs. plus 1 year's graduate study	.....	15 hrs.	4 hrs.	Graduates and students of approved institutions
Colorado	120 hrs.	20 hrs.	.....	4 hrs.	
Connecticut	.....	.....	.....	.....	
Delaware	.....	.....	.....	.....	
Florida	×	One-fifth of time	×	×	Graduates of college and normal departments of state institutions and others of equal rank
Georgia	×	18 hrs.	×	None	Graduates of approved colleges
Idaho	.....	.....	16 hrs.	3 hrs.	Graduates of approved institutions in state only. Data those for University of Idaho
Illinois	4-yr. H.S. course and approved college course	.....	.....	None	
Indiana	.....	.....	.....	.....	
Iowa	120 hrs.	20 hrs.	14 hrs.	None	Graduates of approved colleges within state
Kansas	120 hrs.	15 hrs.	12 hrs.	20 weeks	Graduates of approved colleges. Practice teaching applies only to graduates of Kansas institutions
Kentucky	120 hrs.	×	×	×	
Louisiana	×	×	×	×	Graduates of specified institutions

Maine	120 hrs.	.....	12 hrs.	None	Graduates of Maine colleges or those of equal rank
Maryland	120 hrs.	200 hrs.	×	None	
Massachusetts	120 hrs.	.....	6 hrs.	Optional	Graduates of Massachusetts colleges or those of equal rank
Michigan	120 hrs.	10 hrs.	×	None	Limited to graduates of approved Michigan institutions
Minnesota	120 hrs.	.....	15 hrs.	3 hrs.	Graduates of approved colleges of equal rank with state institutions
Mississippi	.....	.....	.....	.....	
Missouri	120 hrs.	.....	18 hrs.	Optional	
Montana	122 hrs.	23 hrs.	17 hrs.	4 hrs.	Requirements of University of Montana. Practice teaching not included in 122 hrs.
Nebraska	120 hrs.	16 hrs.	×	None	Limited to graduates of approved Nebraska colleges
Nevada	120 hrs.	16 hrs.	×	None	
New Hampshire	.....	.....	.....	.....	
New Jersey	120 hrs.	.....	165 hrs.	None	Credits in specified subjects required. Hours signify recitation periods. From approved colleges only
New Mexico	.....	$2\frac{1}{2}$ credits	$1\frac{1}{2}$ credits	None	Graduation from college not required. College must be of standard grade. A credit equals 10 semester hours
New York	120 hrs.	269 hrs.	224 hrs.	29 hrs. observation	Hours signify recitation periods from registered colleges only
North Carolina	.....	.....	.....	.....	
North Dakota	120 hrs.	.....	16 hrs.	None	Graduates of institutions of recognized standing
Ohio	120 hrs.	30 hrs.	19 hrs.	4 hrs.	Graduates of institutions approved by superintendent
Oklahoma	120 hrs.	20 hrs.	14 hrs.	×	Standard college that has been accepted
Oregon	120 hrs.	.....	15 hrs.	None	Standard college
Pennsylvania	120 hrs.	200 hrs.	.....	None	Recognized colleges only. Individual treatment. Hours signify recitations

TABLE II—*Continued*

States	Total Credits	In Education and Allied Subjects	In Education Alone	In Observation and Practice Teaching	Additional Information—Explanations
Rhode Island	120 hrs.	×	×	×	Satisfactory course in professional subjects. Graduates of approved colleges
South Carolina	.....	.....	.....	.....	.....
South Dakota	120 hrs.	15 hrs.	15 hrs.	None	Graduates of standard colleges
Tennessee	120 hrs.	12 hrs.	×	None	Graduates of University of Tennessee and other institutions of equal rank
Texas	126 hrs.	.....	24 hrs.	4 hrs.	Graduates of institutions of "first class"
Utah	120 hrs.	9 hrs.	×	None	Credits accepted from recognized institutions
Vermont	.....	.....	.....	.....	.....
Virginia	120 hrs.	12 hrs.	×	None	Universities in the Association of American Universities or in the National Association of Colleges in classes A and B of state universities and U.S. Bureau
Washington	120 hrs.	12 hrs.	×	None	Applies only to graduates of accredited colleges within the state
West Virginia	120 hrs.	2½ units	2 units	None	Graduates of normal departments of colleges within the state and accredited schools outside, which must be of equal rank. No West Virginia institution is approved unless it has a practice school. A unit is equal to 10 semester hours
Wisconsin	120 hrs.	12 hrs.	.....	None	Graduates of approved colleges in Wisconsin and other states with courses equivalent to those of the University
Wyoming	126 hrs.	26 hrs.	×	×	Graduates of University of Wyoming and of other colleges of equal rank who have had one-fifth of their work in psychology and education

× Definite information not obtained.

TABLE III

AMOUNTS OF CREDITS IN SEMESTER HOURS IN EDUCATION AND ALLIED SUBJECTS REQUIRED FOR CERTIFICATES BASED PRIMARILY UPON COLLEGE GRADUATION, ARRANGED ACCORDING TO THEIR SIZE

Amounts	States	Number of States
5 hours....	New Jersey	1
6 hours....	Delaware, Massachusetts, Pennsylvania, Maryland	4
8 hours....	New York	1
9 hours....	Utah	1
10 hours....	Michigan	1
12 hours....	Maine, Tennessee, Virginia, Washington, Wisconsin	5
15 hours....	California, Kansas, Minnesota, Oregon, South Dakota	5
16 hours....	Idaho, Nebraska, Nevada, North Dakota	4
18 hours....	Georgia, Missouri	2
20 hours....	Colorado, Iowa, Oklahoma	3
23 hours....	Montana	1
24 hours....	Florida, Texas	2
25 hours....	New Mexico, West Virginia	2
26 hours....	Wyoming	1
30 hours....	Ohio	1
	Total	34

In Arizona the requirement is one year; in Louisiana and Rhode Island the amounts are not fixed. In each case they are probably near the central tendency.

TABLE IV

AMOUNTS OF CREDITS IN SEMESTER HOURS IN EDUCATION ALONE REQUIRED FOR CERTIFICATES BASED UPON COLLEGE GRADUATION, ARRANGED ACCORDING TO SIZE

Amounts	States	Number of States
5 hours....	New Jersey	1
6 hours....	Illinois, Massachusetts	2
7 hours....	New York	1
12 hours....	Kansas, Maine	2
14 hours....	Iowa, Oklahoma	2
15 hours....	California, Minnesota, New Mexico, Oregon	4
16 hours....	Idaho, North Dakota	2
17 hours....	Montana	1
18 hours....	Missouri	1
19 hours....	Ohio	1
20 hours....	West Virginia	1
24 hours....	Texas	1
	Total	19

The nineteen states given above are all that furnished a specific statement as to number of units in educational subjects alone.

indicates that concessions are made in favor of certain institutions within the state. This is true particularly in those states where the standard fixed by law is the requirement of the state university for graduation from its school or department of education, although this condition is not confined to those states alone. It seems that the private colleges unable or unwilling to meet the standard set by the university have sufficient prestige or influence to obtain the favor of a liberal interpretation of the law. That such action is sustained by public sentiment is perhaps sufficient warrant for this exercise of executive discretion, but at the same time there is little doubt that it militates against the highest efficiency in the teaching body. It is altogether probable that a limited supply of teachers for the higher positions makes such a course desirable. At the same time the continuance of such a policy to the detriment of the efficiency of the teaching profession in any state should not be permitted, and it would be well for this society to take strong ground against harmful discrimination in the administration of the law in this respect.

But taking the standards as set forth in the laws and regulations, a very wide variation is observed in the amounts of credits required both in education alone and in education and allied subjects together. There is need for a standard set up by competent authority as to the amounts of technical preparation that should be required by the states of those who enter upon teaching immediately after graduation from college. The data show that the median number of semester hours of the country as a whole at the present time is 15, both for education alone and for education and other subjects. This amount is the standard set by the conferences of chief state education officers regarding certification of teachers, held in the years 1910, 1911, and 1912, for recognition of diplomas of colleges situated in other states than that in which a license might be sought, but as some of the states admitted general psychology as part of the professional equipment, such states modified the standard in compliance with their local practice. These conferences were attended mostly by representatives of the state education offices of the North Central and Western states and the 15-hours-in-education standard has in consequence gained a footing in that territory. For these reasons 15 hours in education

tion alone would seem the best standard for the society to fix upon as the minimum amount of technical preparation in education for college graduates going into the work of teaching.

The question arises in this connection whether the time has not come to establish standards for the academic and professional education of college graduates after they have entered into service. At some future time neither the teaching profession nor the nation will be content with the present standards of preparation. California[1] has already made a step in advance beyond the practice in other

[1] "Each candidate shall have received a Bachelor's degree from a standard college requiring not less than eight years of high-school and college training.

"Each candidate shall submit evidence that, in addition to the academic and professional courses required for the Bachelor's degree, he has completed at least one year of graduate study, doing full regular work, though not necessarily a candidate for a degree, in an approved graduate school as hereinafter defined. Such graduate study shall include at least one full-year course of advanced or graduate work in at least one of the subjects in which the candidate expects to be recommended for certification.

"Each candidate shall also submit evidence that he has completed in undergraduate or graduate standing, or the two combined, not less than 15 units (semester hours) of work, in courses listed in the department of education in the institution in which the graduate work is completed, or courses in other departments of that or other institutions accepted as preparation for teaching by the department of education. These 15 units of work shall include the several courses in education hereinafter prescribed.

"Approved graduate schools referred to above in Requirement 2 (graduate study) shall include the University of California, Leland Stanford Junior University, the University of Southern California (for graduate work done after 1911–12), and such other universities or colleges belonging to the Association of American Universities, or Association of State Universities, approved by the State Board of Education as offer graduate academic and professional preparation equivalent in quality to that offered by the University of California.

"Each institution in which the graduate work is done shall define for itself what constitutes full regular work referred to in Requirement 2.

"The department of education of such institution shall have full charge of the acceptance of work of a professional nature referred to in Requirement 3.

"The required 15 units of work in the department of education shall include the following courses:

"*a*) A course in school and classroom management, or equivalent work—a minimum of 1 unit.

"*b*) Work in actual practice of teaching, with conferences—a minimum of 4 units.

"*c*) A teacher's course in at least one subject in which the candidate expects to be recommended for certification, if such course be given in the institution and be accepted by or listed under the work in education—a maximum of 3 units for all such courses.

[*Footnote continued on p. 50*]

states, and the recent regulations of the state of Ohio[1] represent another forward movement. If 15 semester hours in education is the proper standard for the technical preparation of college graduates, what should be the proper number of hours for teachers

"*d*) A course in secondary education, presenting particularly the purpose and attainable goals of high-school work—a minimum of 2 units.

"*e*) Such other courses relating to the theory, function, and administration of public education as are needed to complete the required 15 units.

"The work in practice teaching shall be done under the general supervision of the department of education of the institution in which the year of graduate work is taken, and may be done in schools of elementary or secondary grade, though preferably in secondary-school work of the kind the candidate is preparing to teach, and under the direction of competent instructors in such work. The work in practice teaching may also be done in connection with the training school of any California state normal school.

"Each teacher's course shall be a bona-fide teacher's course and shall be made as concrete and practical as possible, and shall have for its purpose the preparation of teachers to give intelligent instruction in the subject in the high schools of this state.

"Each university shall set its own standard of requirements for recommendation to teach the several subjects in the secondary schools."—*California State Board of Education Bulletin, No. 5*, pp. 1–3, June, 1914.

[1] "*Requirements for admission* [*to college*].—Graduation from a first-grade high school, or its equivalent.

"Thirty semester hours of professional training are required for certification of college graduates.

"*Practice teaching and observation of teaching.*—Three semester hours are required for practice teaching and observation of teaching, not less than half of which time shall be given to practice teaching, under the supervision of a training teacher.

"Each graduate shall receive a certificate signed by the director indicating that such graduate has completed satisfactorily all observation and practice work required. In no case is credit to be given in observation and practice teaching for experience in teaching in the past. In practice teaching not more than 1 recitation hour per day shall be credited, and not less than 27 recitations shall be taught by each student.

"In addition to the practice teaching and observation work there shall not be less than 12 semester hours distributed among the following subjects with not less than 2 semester hours in each subject:

"(1) History of education.

"(2) Science of education, or principles of education.

"(3) Methods of teaching, general and special.

"(4) School organization, including school management and school laws.

"(5) Psychology—general psychology, educational psychology, paidology.

"The number of semester hours in any one of the above courses may be increased, and, if the total does not reach 30, the remaining semester hours may be chosen from the fields of experimental psychology, sociology, ethics, and philosophy."—*Department of Public Instruction Bulletin, No. 1*, pp. 47–48, August, 1914.

who have had one year of graduate work? As a matter of fact, California requires only 15 semester hours for one year's graduate equipment, but provides that 4 of these hours must be in practice teaching. On the other hand, Ohio and Colorado[1] require even more for the Bachelor's preparation. What is the proper standard

[1] "Under provisions of sec. 4 of the above-named act, the State Board of Examiners will recommend the granting of diplomas, *without examination*, to such applicants as fulfil the following conditions:

"*a*) Graduation from any college or university which maintains a standard four-years' course of collegiate work, and requires four standard years of high-school work, or its equivalent, for admission, or the possession of a degree taken from such college on the basis of not less than one year of graduate work.

. . . . . .

"*c*) The presentation of credentials which show that the applicant has had professional training in institutions of collegiate grade, amounting in all to at least 20 semester hours, and that his professional training was distributed among at least three of the groups of subjects named and described below, and that one of these groups was practice teaching.

"1. *General and educational psychology.*—Under this head such courses as are commonly designated 'general psychology,' or 'introductory psychology,' outlined by such texts, e.g., as Angell, *Psychology*, or James, *Psychology* (briefer course)—not less than 3 hours; and such courses as are commonly designated 'genetic psychology,' or 'educational psychology,' outlined respectively by such texts, e.g., as Kirkpatrick, *Genetic Psychology*, and Thorndike, *Principles of Teaching*—not less than 2 hours in either case.

"2. *History of education.*—Such courses as are commonly designated 'history of education' and outlined by such texts or syllabi, e.g., as Monroe, *History of Education*, or Cubberley, *Syllabus on the History of Education*—not less than 4 hours.

"3. *Science and principles of education.*—Such courses as are commonly designated 'science of education,' or 'principles of education,' or 'science and principles of education,' and outlined by such a text, e.g., as Horne, *Philosophy of Education*—not less than 3 hours; and such courses as are commonly designated 'general method,' or 'method in education,' outlined by such texts, e.g., as McMurry, *Elements of General Method;* Bagley, *Educative Process*, or Laurie, *Institutes of Education*—not less than 2 hours.

"4. *Practice teaching.*—All applicants must present evidence showing that satisfactory work under this head has been done consisting of not less than 60 recitation periods of not less than 30 minutes each, on not less than 50 different days, or not less than 90 recitation periods of not less than 30 minutes each on not less than 25 different days; that they were under competent supervision at all times, and that instruction in special methods for classroom control and individual discipline were provided for in not less than 15 separate conferences and classroom exercises in not less than 6 separate weeks—not less than 4 hours; provided, that practice teaching shall not be accepted when taken by students of lower than college senior rank. Teaching experience will, in no case, be accepted in lieu of the practice teaching

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for each of these grades of preparation? Is it possible to make standards that will serve the country as a whole, or even all states in one section of the country? Is there not great variety in the body of teachers, in the schools, and in the public spirit of states alongside of each other, that would make such standards impracticable? There is much in these questions to give us food for thought. But even if any one set of standards could not be working standards in any large number of states, they would be valuable as indices of the advancement of the policies of individual states from one stage to another, and would greatly assist in the work of recognition of college credits obtained in colleges situated in other states. The standards established by the conferences of chief state education officers have been very helpful in these respects and the results of their efforts are an earnest of the practicability of extending this type of work over a wider territory and into broader fields.

FLEXIBILITY

The professional requirements are divisible into four types as regards the relative rigidity and flexibility of courses included. These types and the states included under each are given in Table V. From this list are excluded the 10 states included under divisions I, II, and IV in Table I, and 5 states in which the require-

requirement; unless credit for practice teaching, as indicated above, is presented, an examination in this subject must be taken.

"5. *Organization and management of schools.*—To consist of such courses as are commonly designated 'secondary schools,' 'elementary schools,' 'school supervision,' or 'supervision of instruction,' and outlined by such texts, e.g., respectively, as DeGarmo, *Principles of Secondary Education;* Gordy, *A Broader Elementary Education;* Arnold, *School and Class Management*, and Bagley, *Class Management*—not less than 3 hours.

"6. *Philosophy, sociology, and anthropology.*—Such courses as are commonly designated 'introduction to philosophy,' or 'general sociology,' 'elements of sociology,' 'principles of sociology,' or 'general anthropology,' 'general ethnography'—not less than 3 hours.

"Under provisions of sec. 7, the State Board of Examiners will recommend the granting of a Temporary Non-renewal Certificate to teach for five years in the public schools of Colorado upon presentation of credentials, as defined under sec. 4 and described in Rule II above, evidence of teaching experience alone excepted."—*Department of Public Instruction, Rules Governing the Actions of the State Board of Examiners in Recommending the Granting of Diplomas*, pp. 2–7 (no date).

ments affect but one institution—Arizona, Montana, Nevada, New Mexico, and Wyoming.

This large measure of flexibility in the requirements of the states within minimum standards of total amounts of professional preparation is fortunate in that it permits migration of well-prepared graduates from one state to another without embarrassments and delays in the receiving of licenses to teach. This is the only fair method to pursue in the light of absence of standards as to professional requirements among the various states and the consequent inability of colleges to meet the demands of more than

TABLE V

FLEXIBILITY OF REQUIREMENTS

Class I.	Neither subjects nor hours for each fixed: Arkansas, Florida, Georgia, Iowa, Idaho, Kentucky, Maine, Maryland, Massachusetts, Michigan, Missouri, North Dakota, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, Virginia, Wyoming, Wisconsin	22 states
Class II.	Part of subjects and hours for each fixed, remainder of requirements flexible—the first figure in parentheses represents number of hours fixed, the second the number not fixed: California (11+4), Colorado (4+16), Kansas (9+3 in institutions located in state only), Minnesota (6+9), Nebraska (hours not fixed, 2+3 subjects), Ohio (4+15)	6 states
Class III.	All of subjects fixed, but variation in hours of individual subject permitted: Illinois, Oklahoma, West Virginia	3 states
Class IV.	Both subjects and hours for each fixed: New Jersey, New York	2 states

the one state in which they are situated. Furthermore there is nothing to show that the requirements which are the most rigid are any better than many others not in accordance therewith maintained in high-grade colleges, whose graduates should in justice be entitled to a certificate equally with those graduates of institutions whose courses happen to conform. This society should favor reasonable flexibility in the requirements of all states.

SUBJECTS

Table VI shows the subjects required in the states included in classes II, III, and IV in Table V, except Oklahoma. This shows

conclusively the lack of uniformity in the subjects required. The requirements of no two states are similar. The most noteworthy features of the table are that one-half of the states require no more than two subjects, one-half require practice teaching, and three of the ten states are in both of these groups. Practice teaching is the newest among the required subjects.

The subjects and hours required in courses in education by state authorities, aside from those given above as definitely prescribed, vary to a great degree. When given, they are as a matter of fact scarcely more than suggestive, although they do within

TABLE VI

SUBJECTS REQUIRED IN CERTIFICATES IN CERTAIN STATES

States	Management	Special Method	Practice Teaching	Secondary Education	History of Education	Educational Psychology	Administration	Observation	Principles of Education	General Psychology	Pedagogy	Number of Subjects Required
California	×	×	×	×	....	....	....	....	....	....	....	4
Colorado	....	....	×	....	....	....	....	....	....	....	....	1
Illinois	....	....	....	....	....	....	....	....	....	....	×	1
Kansas	....	....	....	....	×	×	×	....	×	....	....	4
Minnesota	....	×	×	....	....	....	....	....	....	....	....	2
Nebraska	×	....	....	....	....	....	....	....	....	×	....	2
New Jersey	....	....	....	×	×	×	....	....	....	×	....	4
New York	....	×	....	....	×	×	....	×	×	×	....	6
Ohio	....	....	×	....	....	....	....	....	....	....	....	1
West Virginia	×	×	×	....	×	×	....	....	....	×	....	6
10 states	3	4	5	2	3	4	1	1	2	4	1	

broad limits indicate the scope of the courses which will be credited. The state departments of education in most of the states will co-operate in any reasonable, common-sense effort to secure desirable uniformity as to subjects and standards of attainment within subjects. The regulations of California, Colorado, and Ohio given in the footnotes above are typical of the best statements of requirements in the various subjects.

EXPERIENCE REQUIRED OF COLLEGE GRADUATES BEFORE PERMANENT CERTIFICATES ARE GRANTED

At the present time one or more of four theories control the practice of the various states in the requirements relating to experience in teaching before a permanent license is granted to college

graduates. The first is that college graduation, with or without courses in education, is adequate preparation for permanent legal qualification to teach within the state. This theory is applied to graduates of the state universities of Michigan and Kentucky and to graduates of all approved colleges of the state of New Hampshire. The second theory, which is the most prevalent, is that college graduates already have the required academic and professional preparation, but must prove that they possess the requisite skill in instruction and in management under actual schoolroom conditions before they may be granted permanent licenses to teach. States vary widely as to the length of time required for the test. In Minnesota it is one year; in Kansas, Massachusetts, Missouri, and Wisconsin it is two years; in thirteen states it is three years; in eight states it is five years; in two states six years; in two states ten years; and in one state fifteen years.

It is among those states that require the longest periods of experience before issuing permanent certificates that the third theory is applied: namely, that teachers should not be granted permanent licenses by the state until they have shown that they have such an abiding professional interest in their work that it is reasonable to expect that they will keep abreast of the advancements that are made in the field of education throughout their entire teaching careers. The regulations of the state of Idaho regarding high-school certificates furnish an example. These certificates may be renewed "on establishment of satisfactory proof of progressive efficiency."

The fourth theory protects the state to a still greater degree from the incompetence that may develop in teachers through lack of professional interest or other causes. According to its point of view the state cannot trust any individual teacher to make normal growth, but must at stated periods examine into his professional life and ascertain whether he has, as a matter of fact, been alive professionally and has not fallen behind in the march of progress. This is accomplished by never granting a permanent certificate, but, instead, by extending or renewing limited certificates for similar periods upon the fulfilment of the required conditions. The following, taken from the regulations of Virginia, are in point. The college graduates' certificates are issued for ten-year

periods and renewed for the same length of time upon the following conditions:

1. The holder must furnish evidence that he has been a successful teacher.

2. He must make a written statement on the back of his certificate to the effect that he has read five books of the State Reading Course (giving the names of the books) during the life of the certificate to be renewed. These books may be chosen from any of those mentioned in the State Reading Course, whether adopted for the current year or not.

3. In addition to the foregoing, he must either attend an approved summer school or institute for at least twenty consecutive days during the life of the certificate, and diligently pursue the course of study (taking not less than three classes) prescribed by the conductor of the school; or he must pass a successful examination on at least two of the books of the Reading Course, unless the history of education is chosen, in which event no second book will be required.

This Society is interested, not only in securing initial adequate professional preparation for teaching by college graduates, but also in the maintenance of professional interest and growth among them. It would seem, therefore, that it would be favorably disposed to measures which seek to secure adequate preparation after the granting of the first certificate in those states in which sufficient preparation is not required for the first certificate, and that it would look favorably upon those provisions which insure continual professional growth before a permanent certificate is granted. The possession of skill in teaching and management in addition to adequate initial academic and professional preparation is essential, but it is not sufficient. As the public schools are more closely bound up with the future of the state, the state is warranted in protecting itself from lack of interest and absence of growth among teachers to a greater degree than among members of the other professions. A corollary of these propositions is that professional courses must be furnished in colleges and universities to meet the needs of more adequate professional preparation and for continued professional development beyond the initial minimum.

Table VII gives the requirements of the various states as to experience. The states which do not grant permanent certificates upon the basis of college graduation are Arkansas, Louisiana,

Carolina, Oklahoma, Virginia, and West Virginia. The states not requiring courses in education, and so omitted from the table, are Alabama, Delaware, Connecticut, Mississippi, South Carolina, and Vermont. The requirements in Florida, Maryland, and Tennessee could not be definitely ascertained.

TABLE VII

MINIMUM EXPERIENCE REQUIRED FOR PERMANENT CERTIFICATES OF COLLEGE GRADUATES WHO HAVE PURSUED PROFESSIONAL STUDIES

Years	States	Number of States
0	Kentucky (University), Michigan (University), New Hampshire	3
1	Minnesota	1
2	Kansas, Massachusetts, Missouri, Wisconsin	4
3	Georgia, Delaware, Indiana, Michigan, Montana, Nebraska, New Jersey, New York, Ohio, Oregon, Pennsylvania, Washington, Wyoming	13
5	Idaho, Iowa, Maine, Nevada, New Mexico, North Dakota, South Dakota, Utah	8
6	Arkansas, California	2
10	Arizona, Colorado	2
15	Rhode Island	1
	Total	34

RECOGNITION OF CREDITS OBTAINED IN COLLEGES OUTSIDE THE STATE

Heretofore nothing has been said about the standing of the institutions in which the subjects required for a certificate have been pursued. The determination of the character of the work done in colleges in other states whose graduates apply for certificates consumes a great deal of time in the state departments of education of forty-one states, there being six states in which no such recognition is given: Alabama, Connecticut, Florida, Indiana, Iowa, and Mississippi. Thirty-five of the states apply the same standards for determining the standing of a college as they use in their own state and accept the credits obtained in them the same as if they had been earned in a college within the state. One state—Montana, and also Idaho in part—accepts the standing given the college by the department of education of the state in which it is situated. South Carolina uses the standard list of colleges prepared by the U.S. Bureau of Education. Virginia

uses this list and also membership in the Association of American Universities and in the National Association of State Universities. Certain states make higher requirements for graduates of colleges without the state: Arkansas, Georgia, Nebraska, and South Dakota. Some states accept the work of certain departments in an institution and not of others, among them Pennsylvania.

This variation in standards as to what shall entitle an institution to be "approved," "accepted," or "recognized" can be avoided only when there is some central office which is able to examine carefully into the work of all the departments of all the colleges and which by the excellence of its work has gained the confidence of administrative officers. This cannot be expected at an early day and this society can do nothing to relieve the situation.

Certain of these states—notably New York, whose definition of a standard college has been adopted by the Carnegie Foundation, and Iowa—have adopted standards of their own which, while differing among themselves in minor points, follow the same general lines. The following standard formulated by the Conference of Chief State Education Officers in 1911, which has influenced the standards of some states and been adopted in others, is given as typical. To be considered a standard college, all the following conditions must be fully met:

1. The completion of a four-years' secondary course above the eighth grade shall be required for college entrance.

2. The completion of 120 semester hours shall be required for graduation.

3. The number of class hours for the heads of departments and for students shall not regularly exceed 20 a week.

4. A faculty properly qualified shall consist of graduates of standard colleges, and each head of a department shall hold at least a Master's degree from a standard college or have attained eminent success as a teacher.

5. The library shall consist of at least 5,000 volumes of standard works selected with reference to college subjects and exclusive of public documents.

6. The laboratory equipment shall be sufficient to establish efficient laboratories in all laboratory courses offered.

7. Endowment of Annual Income:

a) The means of support is defined as requiring a permanent endowment of not less than $200,000, or an assured fixed annual income, exclusive of tuition, of at least $10,000; provided that this requirement shall not be mandatory until five years after the institution has been recognized; provided, further,

that this requirement shall not be so interpreted as to work injustice to institutions in which the instruction is, in whole or in part, gratuitous.

b) The college must maintain at least seven separate departments or chairs in the arts and sciences. In case the pedagogical work of the institution is to be accepted for certification, the college must maintain at least eight chairs, one of which shall be devoted to education. At least five of the eight heads of these departments shall devote not less than three-fourths of their time to college work.

INSPECTION OF COLLEGES

Inspection of college work in education seems from the replies to the questionnaire to be most exacting in the states of Florida, West Virginia, Arkansas, Nebraska, and Washington. The inspection seems to be accomplished through visits of members of state boards or of the staffs of the state superintendents or by a member of the department of education in the state university appointed for the purpose. Just how exacting and how effectual this inspection is, it is difficult to say, but it would seem that in at least two of these states the authority of the state department of education is felt in considerable force. Two others have a good organization, while in the fifth state this inspection is not at all frequent or regular, but painstaking and effectual when exercised. After this group follows another of seven states in which some of the heads of the departments of education in the colleges responding said there was inspection and others said there was not. Under such circumstances it is a safe conclusion that such inspection as there is, is indirect, occasional, and exercised only when doubt has arisen from things learned incidentally by the state superintendent or state board of education regarding conditions in the institutions inspected. In two states a new order of administration of certification is beginning and it seems likely that inspection may be closer in the future than in the past. Two states prescribe the aims and outline the courses in education to be pursued and then leave it to the professors to carry on their courses as they choose.

Various opinions are expressed as to the wisdom of such inspection. A number of representatives of state universities expressed themselves as believing that their departments should not be inspected, although they thought it would be a good plan to inspect

the work done in institutions not supported by the state. One reason for this as given was that the state department was the head of the state system of schools and was constantly called on to inspect the secondary schools and to examine papers written by applicants for teachers' certificates. Another put it, that there were in the university administrative officers to protect the interests of the public-school system. Other university men did not oppose inspection, nor did all favor inspection of the private schools. Some intimated that the present situation of non-inspection but of reasonably adequate knowledge of the conditions in these schools was all that could be hoped for at the present time and was quite satisfactory.

The representatives of the private schools, on the other hand, expressed themselves in almost all cases as favorably disposed toward inspection. But they wanted it to be of the right kind, "expert" men, "competent and active," sympathetic, constructive. They believe as a class that the state has a right to inspect the work upon the basis of which it grants certificates, but they doubt whether the state education offices as now manned are competent to do the work. This is the crux of the question—the character and ability of the inspector, and not the inspection.

The lack of co-operation that exists between state and private schools in some states in regard to training and certification of teachers should be corrected. Many of the professors in private schools are just as public-spirited and feel that they are performing a duty to the state to fully the same extent as do the teachers in the state schools. It would promote educational conditions throughout the states if the state schools would submit to inspection, in theory at least, upon the same plane as private institutions, even though in practice it would not usually prove of the same character.

The best agent for this work is an expert in teacher-training who can give all of his time to it. Failing in this, the professors in the leading colleges, both private and state, should be chosen to serve for brief periods. The function of these agents should be to report the facts as they gathered them. The decisive action should be determined by the regularly constituted officers of the state.

COMMITTEE ON RATING, PLACING, AND PROMOTION OF TEACHERS

SOME PROPOSITIONS AND A PLAN FOR THE IMPROVEMENT OF CONDITIONS

Propositions—

1. We already have in this country an institution for the rating, placing, and promotion of teachers, even though the separate units of this institution, the "appointments" or "recommendations" committees, are not working co-operatively together and are not conscious of their larger possibilities.
   a) These committees do, more or less scientifically, rate their teachers.
   b) They do, to quite an extent, place teachers, and more or less discriminatingly.
   c) They do, to quite an extent, promote teachers.
2. Superintendents, principals, boards of education, and school officials generally, are already co-operating with these committees.
3. These "appointments" or "recommendations" committees are increasing in number and are bettering their organizations—are adopting more efficient methods, taking up larger responsibilities. School officials are turning more frequently to them for teachers and more teachers are securing positions in this way.

Recommendations—

1. That the Society either appoint or ask the Department of Superintendence, or the National Council of Education, to appoint a committee or a commission of seven to ten persons whose duty it shall be to devise ways and means of bringing about better understanding and co-operation among the various committees on appointment or recommendation of teachers; such commission, further, to be a mint and a clearing-house for progressive ideas in the field under discussion.

2. That this commission be instructed to point out to the various appointments or recommendations committees, and the institutions of which they are organizations, their larger possibilities in respect to co-operation in such ways, for example, as the following:
   a) By exchanging lists, duplicates of papers, and other data concerning deserving persons who would change residence or who should be promoted but for whom there are no openings at home.
   b) By keeping each other accurately informed as to the status of certification in their respective sections.
   c) By reporting "conditions" in respect to supply of and demand for teachers.
   d) By collecting and communicating accurate information as to salaries, salary tendencies, pensions, etc.
   e) By warning against "undesirables."
   f) By exchanging "honor-lists" of especially strong teachers.
   g) By reporting notable instances of advanced, or degraded, professional ideals.
   h) By watching and reporting on the operations of teachers' agencies, especially on such as are meritorious or "notorious."
   i) By passing along new and important ideas, methods, devices, etc.
3. That this commission be empowered and instructed to appoint individual investigators or subcommittees, or by some other means to see to it that studies pertinent to the rating, placing, and promotion of teachers shall be made, and the findings published.
4. That this commission be instructed to prepare, or to have prepared, a circular or other memorial to superintendents and other school authorites, calling attention to such vital professional matters as, for example, the dependence of a teacher's career upon his initial position, the high impor tance of conscientious appraisal of efforts, and the larger wisdom of promoting the deserving.

5. That said commission be charged with the preparation and publication of a practical (tentative) professional creed (or creeds) for teachers and employers of teachers.

Committee
- Lotus D. Coffman
- Ellwood P. Cubberley
- Edward C. Elliott
- Harlan H. Horner
- George F. James
- W. S. Sutton
- A. S. Whitney
- Frank E. Thompson, *Chairman*

Upon the suggestion of Professor F. E. Thompson, the chairman of the general committee, a subcommittee was appointed to prepare a report upon the rating of teachers. It was presumed that valuable information upon this topic might be secured from the appointments committees of universities, from graduate students who have been investigating this general problem, and from state departments of public instruction that have devised means for the improvement of teachers. Accordingly Mr. W. S. Miller, secretary of the Appointments Committee of the University of Illinois, Dr. F. L. Clapp of the Extension Department of the University of Colorado, Mr. A. C. Boyce, graduate student of the University of Chicago, and Mr. H. H. Horner, deputy-school commissioner of the state of New York, were invited and accepted membership upon the subcommittee. This committee was appointed so late that it was not possible for it to prepare a composite report. And it is to be regretted that the space available restricted the report to a few of the more essential features of the separate contributions of two members of the committee.

L. D. Coffman

SCHOLARSHIP IN RELATION TO TEACHING EFFICIENCY

F. L. CLAPP
Extension Department, University of Colorado

The method employed in general was to secure the ratings of teachers by their superintendents in teaching efficiency and in the various qualities which it was desired to study; to secure the markings in scholarship from the records in the offices of superintendents or the registrars of schools which were attended by the teachers; to compare these various measurements in different ways, chiefly by comparative tables.

The study was undertaken with a full realization of the fact that there is no general standard for the measurement of teaching efficiency and also that "marks" in scholarship are not necessarily adequate indices of real scholastic ability. Such judgments as were asked for are constantly being made. Whatever the data may lack in the way of scientific accuracy they represent a practical matter; a way of doing some of the vitally important work of the schools.

In view of the emphasis placed upon scholarship as a means of selecting teachers it seemed worth while to inquire what relation actually exists between these scholarship marks and the estimates of teaching efficiency.

In this investigation data of four kinds have been collected, viz., (1) those concerning teachers' examinations which have reference to elementary teachers in rural and village schools only; (2) those concerning the records of students in a state university having to do with high-school teachers only; (3) those concerning the records of students in a state normal school having to do with elementary teachers in a large city only; and (4) those concerning the estimates of superintendents in regard to the scholarship of teachers based on the observation of the daily work of the teacher and having to do with teachers of both elementary- and high-school grade.

The different parts of the study will be presented in the order named above.

The data concerning teachers' examinations were secured from the records in the offices of county superintendents in Indiana.

TABLE I

SHOWING THE DISTRIBUTION OF MARKS IN SCHOLARSHIP AND IN TEACHING EFFICIENCY OF 512 BEGINNING TEACHERS IN INDIANA

Efficiency	Scholarship																		Total
	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	
75	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	3
76	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
77	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
78	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
79	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
80	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	2
81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
82	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
83	...	...	...	...	...	1	2	...	...	1	...	...	...	...	...	...	...	...	4
84	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
85	...	...	...	...	...	13	4	4	7	1	1	...	1	1	1	...	...	...	33
86	...	...	...	...	...	15	8	7	6	2	1	...	1	...	2	...	...	...	42
87	...	...	...	2	2	27	22	11	14	9	9	3	2	2	1	...	...	...	104
88*	...	...	...	2	...	23	8	10	13	11	9	3	5	1	...	1	...	1	87
89	...	...	...	1	1	11	12	10	15	11	5	3	3	2	...	1	...	1	76
90	...	...	...	1	1	12	12	10	15	8	12	7	3	2	...	1	...	...	84
91	...	...	...	...	...	6	5	4	5	2	2	4	2	1	1	2	...	...	34
92	...	...	...	...	...	1	2	...	...	2	1	2	1	...	1	...	...	1	11
93	...	...	...	...	...	...	...	1	1	1	...	1	...	...	...	...	...	...	4
94	...	...	...	...	...	...	1	1	...	1	...	...	1	2	...	...	...	...	6
95	...	...	...	1	...	...	...	...	1	1	...	1	2	...	1	...	...	...	7
96	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	2	...	...	4
97	...	...	...	...	...	1	...	...	1	1	1	...	1	...	...	1	...	...	6
98	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2
Total median	1	...	...	7	4	112	78	58	79	52	44	24	22	11	9	8	...	3	512

It is to be seen in Table I that the marks in scholarship range from 80 to 97 and in success from 75 to 98. The median mark assigned in scholarship was 87 and in success 86.

The table may be interpreted in many different ways. One practical question might be, If we should take all those teachers with a scholarship mark of 90 and all those with a scholarship mark of 85, would the chances of securing a teacher with a high scuccess mark be greater under the former plan or the latter?

In answer to this query we find that 44 teachers received a mark of 90 in scholarship. The success marks of these teachers ranged from 75 to 98—from the lowest to the highest mark assigned in success; 13, or 29.5 per cent, received a success mark below the median; 9, or 20 per cent, were given the median mark; and 22, or 50 per cent, were above the median.

Of the 112 receiving a scholarship mark of 85, 58, or 52 per cent, were below the median in success; 23, or 20 per cent, were given the median mark; and only 31, or 27.5 per cent, were above the median.

This would seem to indicate that by choosing teachers with a scholarship mark of 90 rather than 85 the chances are about 2 to 1 that a teacher above the median in efficiency would be selected. Similar treatment of the cases showing scholarship marks of 91 to 86 reveal about the same advantage in favor of the teachers with the higher mark.

Of *all* those below the median in scholarship (202), 100, or 49.5 per cent, were below the median in success, while 59, or 34 per cent, were above; the remaining 33, or 16.5 per cent, having received the median mark.

Of *all* those above the median in scholarship (252), 69, or 27 per cent, were below the median in success, while 139, or 55 per cent, were above; the remaining 44, or 18 per cent, having received the median mark.

TABLE II

SHOWING DISTRIBUTION OF TEACHERS WITH REFERENCE TO SCHOLARSHIP AND TEACHING EFFICIENCY. SCHOLARSHIP MEASURED BY THE MEDIAN IN *All* COURSES PURSUED IN THE UNIVERSITY*

Rank in Efficiency	Number of Graduates with a Median Scholarship Mark of																Total	Median
	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95		
1	1	...	1	6	5	9	7	10	4	3	13	2	1	8	1	...	71	87.2
2	2	...	1	8	7	16	12	12	10	5	8	5	...	6	1	1	86	86.6
3	2	...	1	4	3	11	7	3	1	2	6	2	...	5	1	...	48	85.9
4	1	...	...	2	1	5	2	1	2	...	...	...	...	...	...	...	14	85.1
Refused certificates	...	...	...	1	3	4	2	2	2	3	3	...	...	1	...	...	21	87.0
	6	...	3	21	19	45	30	28	19	13	30	9	1	20	3	1	248	

* Gymnasium and military drill not included.

Comparing more directly the two classes, those above and those below the median in scholarship, we find that the better students furnish 1.6 as great a percentage of good teachers as do the poorer students and only 0.5 as large a percentage of poor teachers, while the two classes furnish practically the same percentage of median teachers. Thus we see that the chances of securing good teachers are about 2 to 1 if we select from the good students rather than from among the poorer ones.

TABLE III

SHOWING PERCENTAGE BELOW AND ABOVE THE GENERAL SCHOLARSHIP MEDIAN FOR EACH OF THE FIVE CLASSES. SCHOLARSHIP MEASURED BY THE MEDIAN MARK IN ALL UNIVERSITY COURSES

Rank in Efficiency	Percentage below Scholarship Median	Percentage above Scholarship Median
1	41	59
2	49	51
3	58	42
4	78	22
Refused certificates	48	52

TABLE IV

SHOWING NUMBER AND PERCENTAGE OF "POOR," "FAIR," "GOOD," AND "EXCELLENT" MARKS OBTAINED BY EACH OF THE FOUR EFFICIENCY CLASSES IN *All* OF THEIR UNIVERSITY COURSES

Rank in Efficiency	Number				Percentages			
	Poor	Fair	Good	Excellent	Poor	Fair	Good	Excellent
1	128	611	1215	480	5	25	50	20
2	154	917	1963	582	4	26	54	16
3	99	475	746	282	6	30	47	17
4	23	172	239	40	5	36	50	9

Rank in Efficiency	Percentage Poor and Fair	Percentage Good and Excellent
1	30	70
2	30	70
3	36	64
4	41	59

Table IV makes it very clear that a larger percentage of the better scholars succeed in getting into the higher ranks in efficiency than is the case with the poorer scholars. It also makes it evident again that those who were refused certificates did not have an undue share of poor scholarship among them.

TABLE V

SHOWING DISTRIBUTION OF TEACHERS IN RELATION TO TEACHING EFFICIENCY AND TO THEIR SCHOLARSHIP AS INDICATED BY MARKS AS RECEIVED IN CERTAIN PROFESSIONAL COURSES PURSUED IN THE UNIVERSITY

Rank in Efficiency	Number of Teachers with a Median Scholarship of																	Total	Median
	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94		
1	...	...	3	...	4	6	4	11	7	3	6	4	2	4	5	3	2	64	86.4
2	1	1	...	1	4	9	9	12	10	3	13	9	6	4	...	7	...	89	86.3
3	...	...	2	1	2	6	2	7	6	3	4	1	1	2	...	6	...	43	85.8
4	1	...	1	1	...	...	1	6	1	...	...	1	...	...	...	...	...	12	84.3
Total	2	1	6	3	10	21	16	36	24	9	23	15	9	10	5	16	2	208	

TABLE VI

SHOWING PERCENTAGE BELOW AND ABOVE GENERAL SCHOLARSHIP MEDIAN FOR PROFESSIONAL SUBJECTS IN EACH OF THE FOUR EFFICIENCY GROUPS

Rank in Efficiency	Percentage below Scholarship Median	Percentage above Scholarship Median
1	48	52
2	46	54
3	51	49
4	83	17

So far in this section we have attempted to study scholarship as an index to teaching efficiency, considering scholarship as measured in three ways as follows: (1) by the median scholarship mark in *all* subjects; (2) by the median mark in those subjects that were later taught in the high school; (3) by the average scholarship mark in courses in education and psychology (professional courses).

In order to compare more directly the value of these three kinds of marks as indices of teaching efficiency the results shown in the previous tables are reproduced in Tables VII and VIII.

Table VIII indicates the injustice in comparing those teachers who are graduates of both kinds of schools with those who are graduates of the university only. While the graduates of both schools far outrank those who are graduates of the university alone, it is to be noted that the average experience of those in (A) is more than three and one-half times that of those in (B). This superior showing may be due in part, and doubtless is, to the training in the normal school, but experience plays a large part, how large it is impossible to tell.

TABLE VII

SHOWING THE RELATION BETWEEN TEACHING EFFICIENCY AND SCHOLARSHIP. SCHOLARSHIP MEASURED IN THREE WAYS: (*a*) MEDIAN MARK IN ALL UNIVERSITY COURSES, (*b*) MEDIAN MARK IN THOSE SUBJECTS THAT WERE LATER TAUGHT IN THE HIGH SCHOOL; (*c*) MEDIAN MARK IN PROFESSIONAL SUBJECTS. SHOWING PERCENTAGES ABOVE GENERAL SCHOLARSHIP MEDIAN FOR EACH CLASS OF MARKS IN EACH OF THE FOUR EFFICIENCY GROUPS

A. SCHOLARSHIP MEDIANS

Rank in Efficiency	All Courses	Decrease	Subjects Taught	Decrease	Professional	Decrease
1	87.2	.....	88.0	.....	86.4	.....
2	86.6	0.6	87.4	0.6	86.3	0.1
3	85.9	0.7	87.2	0.2	85.8	0.5
4	85.1	0.8	85.5	1.7	84.3	1.5

B. PERCENTAGE ABOVE GENERAL SCHOLARSHIP MEDIAN FOR EACH CLASS OF MARKS IN EACH OF THE FOUR EFFICIENCY GROUPS

1	59	.....	56	.....	52	.....
2	51	8	48	8	54	2
3	42	9	45	3	49	5
4	22	22	33	20	17	32

Another question might be asked, i.e., How do those teachers who were graduates of the university but not of normal schools compare with reference to experience in the elementary school? This question could not be answered with any authoritativeness, since there were so few of these teachers who had had experience in the elementary schools.

To sum up the foregoing discussions of the relation of the university scholarship marks to teaching efficiency is a matter of some

difficulty. It is clear, however, that there is in any set of grades studied some positive relationship between scholarship and teaching efficiency. Of the three sets of marks studied, viz., general, special, and professional, the first-named seems to be the best index to teaching merit and the last-named the poorest. There is no

TABLE VIII

SHOWING COMPARATIVE RANKINGS IN TEACHING EFFICIENCY OF THOSE UNIVERSITY GRADUATES WHO ARE ALSO GRADUATES OF NORMAL SCHOOLS AND THOSE WHO ARE GRADUATES OF THE UNIVERSITY ONLY

A. GRADUATES OF BOTH NORMAL AND UNIVERSITY

Rank in Efficiency	Number	Percentage of Total	Experience in Elementary School (Average)	Experience in High School (Average)	Total Experience (Average)
1	22	47	3.1	5.4	8.5
2	18	38	3.0	3.1	6.1
3	6	13	4.1	3.5	7.6
4	1	2	9.0	2.0	11.0
Total	47				Av. 7.5

B. GRADUATES OF UNIVERSITY ONLY

1	48	27	0.6	2.2	2.8
2	77	43	0.4	1.8	2.2
3	42	23	0.4	1.4	1.8
4	13	7	0.5	1.6	2.1
Total	180				Av. 2.2

marked difference in the average deviations of the four classes from the scholarship median established for each case. One class of teachers is decidedly superior, viz., those who are graduates of both the normal school and the university and have had experience in both elementary and high schools.

A METHOD FOR GUIDING AND CONTROLLING THE JUDGING OF TEACHING EFFICIENCY

A. C. BOYCE
School of Education, University of Chicago

The method reported is an attempt to eliminate some of the difficulties common in rating schemes and to furnish a means of getting some necessary information to be used for the reduction of this complicated problem to its simpler elements.

In choosing the qualities of merit which should form the basis of our analysis of the teacher's efficiency, the following points were held in mind:

1. The topics must not be too few, for either they will be so general that no analysis is made, or if not general, they will be sure to leave out important points.

2. On the other hand, the list must not be so long as to be cumbersome.

3. The qualities must be of the greatest possible suggestiveness, both to supervisors and to teachers. The scheme must direct the attention of the supervisor to the really vital factors of the situation so that he cannot be deceived by any display of nonessentials. The attention of the supervisor should be directed also to the pupils and not alone to the teacher.

4. The rating device should set up a standard for the teacher to measure her own work by and to give her ideas for self-improvement. By helping her to be properly self-critical, it would prepare the way for supervisory criticism and make her willing to receive helpful suggestions. The teacher would be helped, too, by knowing definitely what was expected of her by the supervisory staff.

As will be seen, the qualities have been classified into five general groups. The first four groups consider the native ability, preparation, social qualities, and technical skill which the teacher puts into the work. The fifth, results, considers the effect of these things on the lives and development of the pupils.

In order that the terms might be clearly understood by all concerned, they have been defined or elaborated briefly on the page

facing the record sheet. Unless the terms are very specific they may carry many more ideas for one person than for another. It is important that they have the same full meaning for all.

What is the best method of recording judgment?

The descriptive report blanks in which the supervisor writes a more or less connected account of the teacher is very wasteful of precious time and energy in the clerical work involved. The effectiveness of the report depends very largely on the supervisor's ability to express himself easily and accurately. Long sentences and wordy descriptions may conceal the judge's thought as well as reveal it. Moreover, such a report cannot be summarized at a glance and does not permit of quick analysis. It has to be read as laboriously as it was written.

Answers to specific questions take less time if the answers may be brief. There is great difficulty, however, in getting a general view of the teacher. If the answers to the questions or the rank allotted to the teacher in the given quality is expressed by symbols such as letters or figures, some time is saved for the one reporting but none for the one using the report afterward. In each case the letters or figures have to be translated into meaningful terms.

A method of record which is brief and permits of easy summation is that of assigned percentages such as in the Elliott scale. The percentages are capable of expressing all degrees of excellence. They are easily comparable, provided their bases are clearly defined. There are, however, two great difficulties with such schemes as now presented: first, very few people will agree as to the proper adjustment of the values of the qualities; and, secondly, the process of cutting for deficiencies is ordinarily so little controlled that the final result differentiates the teachers little if any.

Graphical representation of the presence or absence of qualities is the method which we have adopted for this work. It is possible to express easily, by means of a curve, many things that could be expressed in words with greatest difficulty. The value of the graphical method will be apparent as we proceed.

A graphical method of scoring judgments.—As will be seen from the score card reproduced herewith, there is, opposite each quality, a scale on which the degree of excellence is expressed by the distance measured from the base along the line.

In order to facilitate the placing of a teacher along this line and (what is equally important) to control that placement to some extent, it seemed wise to make a fivefold division of our scale.

These five divisions were called, beginning with the left-hand division, "Very Poor," "Poor," "Medium," "Good," and "Excellent."

A supervisor's first judgment, then, with respect to a teacher's standing in any of the qualities indicated, must be to determine the class in which she should be rated for that quality.

Within the class there is further opportunity for differentiation. Thus if a teacher is "good" in any quality but nearly "excellent," the mark for that quality will go in the space near the "excellent" division; if the teacher is barely "good" in the quality considered, the mark will be placed in the space next to "medium."

We used five divisions in order that there might be a "medium" and the possibility of differentiation into those "good "and "excellent" in the group above medium, and into "poor" and "very poor" of the group below medium. It should be easy to place a teacher in one of these five classes with respect to any quality, whereas the placement in a scale of many divisions might be confusing.

The size of the divisions is suggested by the curve of probability. If we had a very large number of teachers classified with respect to any one quality, we should expect to find the largest number medium, not so many good or poor, and still fewer excellent or very poor. The exact number falling in each division would depend on our arrangement of the limits. Various investigators have proposed different percentages for these divisions. We give here the number out of 100 recommended by Professors Meyer,[1] Dearborn,[2] and Cattell,[3] as proper for each division of "very poor," "poor," "medium," "good," "excellent."

	Very Poor	Poor	Medium	Good	Excellent
Meyer	3	22	30	22	3
Dearborn	2	23	50	23	2
Cattell	10	20	40	20	10

[1] M. Meyer, "The Grading of Students," *Science*, N.S., XXVIII, 243.

[2] W. F. Dearborn, "School and University Grades," *Bulletin of University of Wisconsin* (1910), *No. 368.*

[3] J. W. Cattell, "Examinations, Grades, and Credits," *Popular Science Monthly*, LX, 367.

We have chosen the more liberal and more easily applied division of Cattell for our division of the scale. We have divided the line into twenty equal spaces arranged in five groups of two, four, eight, four, and two spaces each.

Reduction of the judgments to a single term.—The general rating indicated on the report blank reproduced is the superintendent's own judgment of the teacher's general merit recorded after filling out the detailed rating. It is not determined mathematically, but is the officer's mental summation of the qualities which he has just passed upon. As the record stands, it indicates nothing as to the relative value of the various qualities. It simply allows for judgment on each quality and indicates general merit by the location of the resulting "curve." We may resort to other means, however, to get the general result.

The median: One way to get a general grade from the detailed rating is that of finding the median of the distribution. Taking the record of the "poorest" teacher recorded for School VIII, it will be noticed that 2 qualities fall in column 5, 4 in column 6, 3 in column 7, and so on, until the 44 qualities have been placed. The median of this distribution falls between columns 13 and 14, or five spaces above the superintendent's place for the teacher.

The average: If we multiply the number of the column by the number of qualities falling in it and divide the sum of these products by 44, we have an average of the distribution. In this case it turns out to be 12.2, which is not quite so far removed from the superintendent's judgment.

Numerical values for the schedule.—The two methods just described, for determining the general merit grade, give true results only if the qualities are all of the same value. They are determined on that basis. It is obvious, however, that some of these qualities should have more consideration than others in determining the teacher's general merit. The factors must therefore be weighted in proportion to their value, if the success grade is to be just.

Relation of qualities of merit to general rating.—The matter of relative values is one which may be worked out on the basis of the data gathered by means of the scheme here proposed. That it cannot be determined by a priori theorizing has become evident.

The present method, however, is more promising, for here we are getting the relations between the qualities and general merit in the actual judging situation and with real teachers.

Up to the present we do not have enough teachers rated by this scheme to justify reliable conclusions, but we present in Table I the degree of association (Q) between each of the 44 qualities and the general rating, in the cases of 125 teachers from eleven different schools. The method of correlation was that indicated by Yule's formula $Q=\frac{ad-bc}{ad+bc}$ in which a = those teachers who were good or excellent both in the quality and in general rating; b = those who were good or excellent in general rating and below good in the quality; c = those who were good or excellent in the quality and below in general rating; d = those below good, both in the quality and in general rating. The limited number of cases and the roughness of this correlation formula preclude any very accurate measure of the relations, but they are probably indicative of what we should expect.

Taking these correlations for what they are worth, it will be noted that of the ten qualities ranking highest in their relation to general merit, five are matters of teaching technique. Only two "personal" qualities, initiative and adaptability, fall in the first ten. The lowest ten correlations are scattered. General appearance and health rank low here as in other studies. Voice ranks low because so many "good" teachers have mediocre voices. Professional preparation likewise is in the lowest ten because of the limited training on the part of so many teachers. Co-operation, use of English, and moral influence illustrate a different cause of low correlation. In these qualities most of the teachers are rated high, and high rating in these points does not produce high general rating. The mechanical features of school-keeping seem to be of comparatively little weight in determining general merit. Discipline does not rank as high as might be expected. There is much variation in governing skill in teachers on both sides of our dividing line.

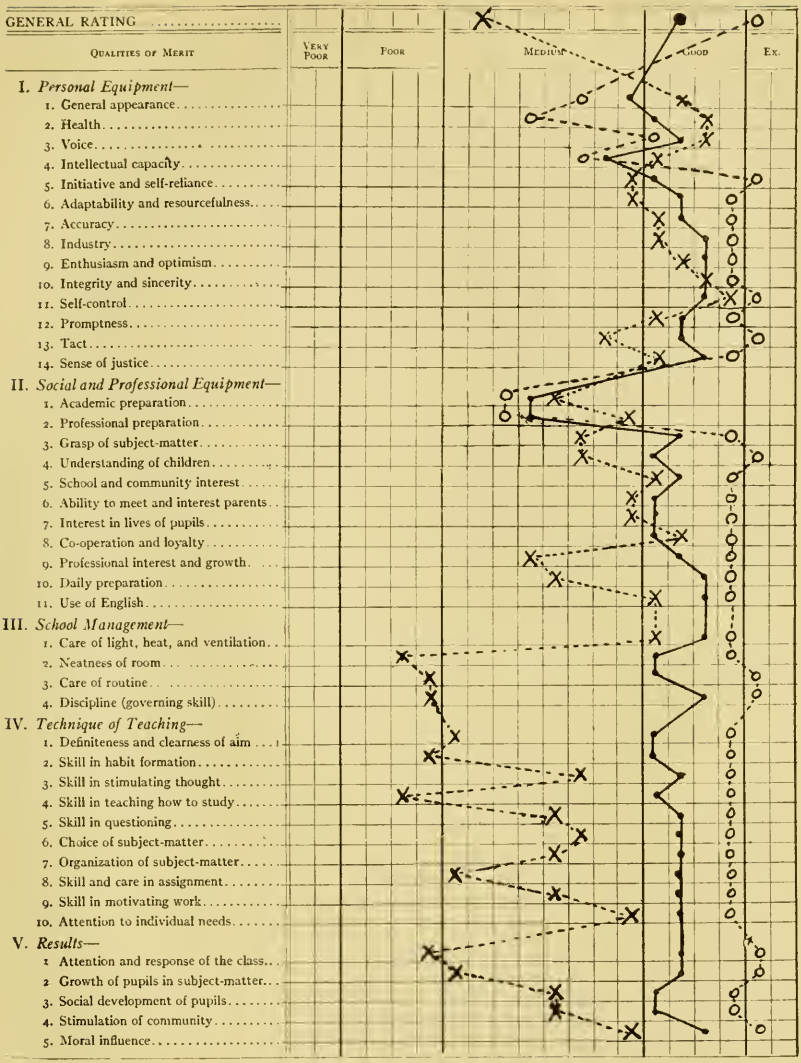
Tests of the method.—Graph I is typical of the results obtained when the teachers of a school are rated by one person. The graph

TABLE I

CORRELATIONS OF GENERAL RATING

With	Q	Rank
I. *Personal Equipment*—		
1. General appearance	.67	38
2. Health	.48	43
3. Voice	.56	42
4. Intellectual capacity	.79	32
5. Initiative and self-reliance	.95	5
6. Adaptability and resourcefulness	.94	7
7. Accuracy	.88	21
8. Industry	.86	27
9. Enthusiasm and optimism	.87	26
10. Integrity and sincerity	.78	33
11. Self-control	.86	25
12. Promptness	.78	34
13. Tact	.88	23
14. Sense of justice	.86	28
II. *Social and Professional Equipment*—		
1. Academic preparation	.85	30
2. Professional preparation	.73	36
3. Grasp of subject-matter	.88	22
4. Understanding of children	.89	19
5. School and community interest	.91	17
6. Ability to meet and interest parents	.93	13
7. Interest in lives of pupils	.85	31
8. Co-operation and loyalty	.68	37
9. Professional interest and growth	.90	18
10. Daily preparation	.94	8
11. Use of English	.63	39
III. *School Management*—		
1. Care of light, heat, and ventilation	.57	41
2. Neatness of room	.48	44
3. Care of routine	.61	40
4. Discipline (governing skill)	.88	24
IV. *Technique of Teaching*—		
1. Definiteness and clearness of aim	.93	12
2. Skill in habit formation	.93	9
3. Skill in stimulating thought	.93	10
4. Skill in teaching how to study	1.00	1
5. Skill in questioning	.93	11
6. Choice of subject-matter	.98	3
7. Organization of subject-matter	.99	2
8. Skill and care in assignment	.91	16
9. Skill in motivating work	.92	14
10. Attention to individual needs	.86	29
V. *Results*—		
1. Attention and response of the class	.89	20
2. Growth of pupils in subject-matter	.95	6
3. Social development of pupils	.91	15
4. Stimulation of community	.98	4
5. Moral influence	.77	35

Efficiency Record



GRAPH I.—Records from School VIII

Poorest: X - - - - X ; Average: ——— ; Best O - - - - O

shows the record for the average of the group of nine teachers, and, compared with this, the record of the best teacher in the group and that of the poorest. As our correlations would indicate, there is a tendency for the records to show more confusion in the personal and social groups of qualities than in those more technical.

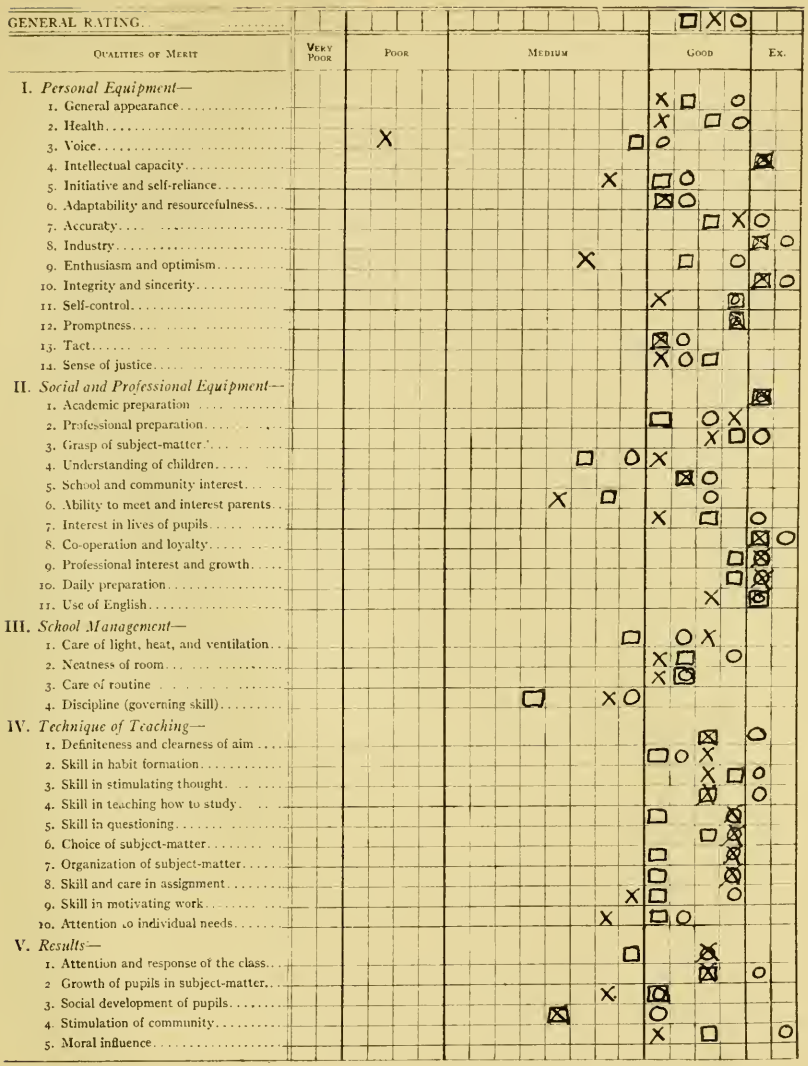
The possibility of expressing all degrees of excellence in teachers, as well as all combinations of specific kinds of excellence, is plainly shown by the records we have at hand. The graphic method of recording judgments in regard to the various qualities of merit is adapted to all the numberless varieties of teaching efficiency.

Graph II shows the efficiency of a teacher as recorded by three different judges, the superintendent, the principal, and the supervisor of elementary grades. At three points the records are identical, and in only one quality do the records diverge more than seven spaces. In regard to the teacher's voice there is a very large difference of eleven spaces between the judgment of the supervisor and that of the principal. With practice and greater mutual understanding on the part of the judges, the differences here shown would probably be reduced.

Graph III shows the possibility of a principal making ratings of a teacher at two different times and having the ratings nearly the same. The principal in this case made ratings of his teachers in May and again in November. The graph gives the two records of the poorest teacher in the school. Although the first records were not at hand for the principal to refer to, there is large agreement between the two sets. In this case the same general rating is given both times. In 22 qualities the teacher is rated higher, five spaces being the highest raise. In 7 points she is rated lower, and in 15 the same. The most striking change is in academic and professional preparation which were changed from "good" to "medium," a distance of six spaces downward, when there could not have been any deterioration. It is evident that on these points the principal's judgment varied considerably. Definiteness in the mind of the principal as to what he considered medium, good, or excellent preparation would overcome any such variation.

How the blank controls the judgment.—One of the difficulties with rating schemes is that after a few years the grades are all raised

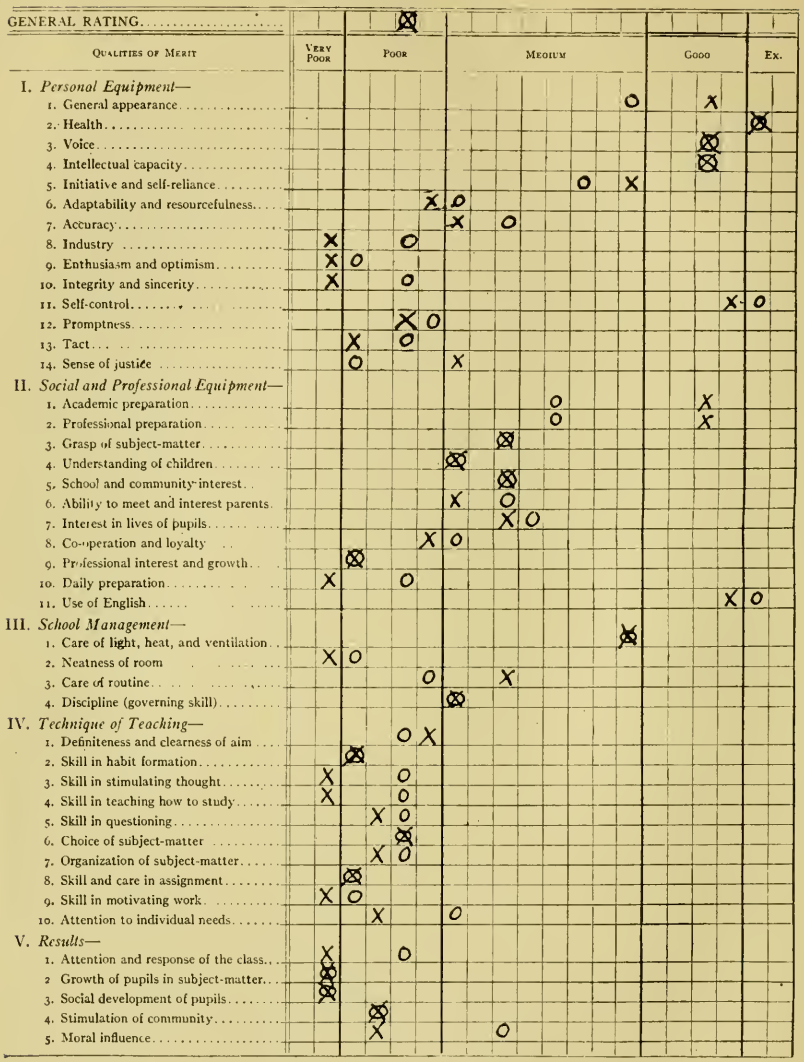
Efficiency Record



GRAPH II.—Efficiency of a teacher recorded by three different judges

Superintendent: □ ; Principal: × ; Supervisor: ⌒

Efficiency Record



Graph III.—A principal's record of a teacher at two different times

May: X ; November: O

to the point where no discrimination is shown. The rating scheme must control this factor as far as possible and prevent raising of grades from year to year unless real improvement is shown. By having the scale divided into divisions called "Very Poor," "Poor," "Medium," "Good," and "Excellent," the judge is prevented from giving a high mark for poor ability unless he is willing to perjure himself all along the line, in which case no scheme could be constructed to prevent him from doing so.

The extent to which the principals and superintendents who have tried this blank on their teachers have been influenced and controlled by it in their final rating is best shown by their answers to our question: "Did filling out this record modify your previous judgment of this teacher? If so, how?"

In the case of those officers who were in the habit of rating their teachers, the blank did not change their general opinion to any extent. They say, however, that filling out the record particularized their judgment. The cases in which the judgments were lowered and those in which new points of excellence were found are about equal. Some of the answers to our question are as follows:

"Careful thought necessitated, showed up faults."
"Lowered opinion."
"Made factors of judgment more definite and certain."
"Strengthened opinion; led to closer analysis."
"Lowered opinion three points."
"Raised rating."
"Lowered somewhat."
"Made rating more definite."
"Gained more definite detailed knowledge."
"Made me realize her possibilities."
"Discovered good points."
"Points of excellence not realized before."
"Rated him higher than before."
"Detailed attention to III, IV, and V depreciated opinion of her."
"Previously gave too much attention to minor points."
"General impression was more favorable than analysis justified."

Doubt is expressed as to the ease of getting the general rating by this method, but the judges are very sure that the general rating when reached is more certain and more just to the teacher.

Difficulties in filling out the record.—One large difficulty found by some of the users of this scheme had to do with the meaning of the terms "excellent," "good," "medium," "poor," and "very poor." We left this at first to the judgment of the one using the scale but have later defined these terms as follows:

General rating is your estimate of the general merit of the teacher based on your knowledge of her work. It is to be recorded *after* making the detailed rating. "Very poor" general rating means that the teacher is practically a failure and not worthy of retention. "Poor" general rating means that the teacher is unsatisfactory and below the average for that place, but still usable. "Medium" means average merit for the position held. "Good" means above the average; and "excellent," very superior.

In *detailed rating* each quality is to be judged on its own basis without reference to other qualities. Your mark will express your judgment as to the degree of presence or absence of merit in the teacher with reference to the quality in question. A mark of "very poor" in any quality means extreme lack of merit as far as that quality is concerned. "Poor" means unsatisfactory and below the average. "Medium" means satisfactory or average merit in the quality. "Good" is above the average, and "excellent" is very superior.

Some were confused by the large number of spaces, especially within the "medium" column. It has seemed to us from the experience we have had with the twenty-space scale that there are probably more spaces than necessary. We have therefore cut the number to ten, making the proportion the same.

There was difficulty in applying all the terms to all situations. For instance, "stimulation of community" is hard to apply in a city school where the teachers may scarcely touch the community outside. In a small town this item would be more important.

More frequent is the difficulty of applying all items to all grades in the same school. Thus principals sometimes hesitate to grade primary teachers on "teaching how to study" and on "assignment" when little or no formal study is done. Likewise teachers of manual arts have little to do with study and assignments as ordinarily understood.

It may be that one general scale will not do for all grades of the school and it is evident that the same scale of values will hardly be applicable to all conditions. The variations in the scale will have to be worked out later.

LIST OF INVESTIGATIONS BY MEMBERS

CARTER ALEXANDER
George Peabody College for Teachers

NOTE.—For each item, the title comes first, then the name of the member to whom correspondence should be addressed, with the name of his institution. The exact address may easily be found from the United States Bureau of Education's directory.

A name in parentheses is that of a student working under some member. Some investigations are reported with names of students only.

It was impossible to get for this Yearbook the investigations of members who have recently been elected by the Executive Committee.

The items have been classified roughly, but the classifications are not mutually exclusive. However, most items of the same nature will be found close together.

ADMINISTRATION

MISCELLANEOUS

City School Supervision. L. D. Coffman, University of Illinois (A. J. Beatty).

Powers and Duties of School Superintendents. W. A. Jessup, Iowa State University.

A Study of Elimination and Retardation. Raymond W. Sies, University of Pittsburgh (A. R. Kraybill).

Elimination of Pupils from the Schools in Iowa. G. M. Wilson, Iowa State College.

Retardation, Acceleration, and Class Standing. V. A. C. Henmon, University of Wisconsin.

Physiological Age as a Basis for Grouping Children in New York City School Children. Stephen P. Duggan, College of the City of New York.

The Variability of Assigned Values as a Factor in Marking. Alexander Inglis, Harvard University.

Survey of the Studies on Grading and Promotion. L. A. Williams, University of North Carolina.

A Method of Equating Values in Grading. Alexander G. Inglis, Harvard University.

Standards of Grading in the Nashville City High School; Relation of Estimates of Daily Work to Examination Grades in the Nashville High School. Carter Alexander, George Peabody College for Teachers.

A Study of Tardiness. Raymond W. Sies, University of Pittsburgh (W. F. Kennedy).

Teachers' Pension Systems. Raymond W. Sies, University of Pittsburgh.

The Status of the Small College in the State System of Education. C. H. Johnston, University of Illinois (J. L. Conel).

Internal Government of Selected Universities. C. H. Johnston, University of Illinois.

Correlation between Class Standing and Amount of Home Study. W. H. Heck, University of Virginia.

An Analysis of the Management of Home Study. H. W. Holmes, Harvard University.

Problems, Methods, and Administration of Supervised Study. A. L. Hall-Quest, University of Illinois.

A Statistical Inquiry of Facts and Principles Governing Special Class Work among St. Louis Teachers. J. E. Wallin, Psycho-educational Clinic, St. Louis Public Schools.

The Increasing Sensitiveness of School Organization to Special Social Classes —Deaf, Blind, Defective, Delinquent, etc. (Robert A. F. MacDonald), Teachers College.

The Increasing Sensitiveness of Elementary-School Organization to Variations in the School and School Populations as Indicated by Adjustments Made through Special Types of Schools and Classes. (Robert A. F. MacDonald), Teachers College.

The Increasing Effort of the Public-School System to Remove the Disability of Poverty in Education. (M. Boyd Coyner), Teachers College.

Studies in Vocational Education and Guidance. W. A. Jessup, Iowa State University.

State Regulation of Entrance into Vocations. W. A. Jessup, Iowa State University.

The Laws of Social Administration as Applied to the Public-School System. (Samuel Margosher, Bureau of Education, Irish Community, New York City), Teachers College.

Co-operative Methods of School Support in the United States (in press). R. M. Stewart, Iowa State University.

Extraordinary Expenditures for School Purposes. W. A. Jessup, Iowa State University.

Comparative Cost and Efficiency of the One-, Two-, Three-, and Four-Teacher Rural High School in North Carolina. L. A. Williams, University of North Carolina.

State Comity Respecting Teachers' Life Certificates. C. O. Davis, University of Michigan.

A Study of the Conditions of Teaching Efficiency. H. G. Childs, Indiana University.

A Comparative Study of Township, District, Consolidated, Town, and City Schools of Indiana. (L. B. Rogers), Teachers College.

Agricultural Schools in Minnesota. (F. L. Whitney), University of Chicago.

Certain Economic Factors Affecting Teaching Efficiency. L. D. Coffman, University of Illinois (Olive Paine).

Statistics of the North Central Association. (G. S. Counts), University of Chicago.

Effect of Kindergarten Training. Cyrus D. Mead, University of Cincinnati (Lottie Wiedemer).

Effect of Kindergarten Training. Raymond W. Sies, University of Pittsburgh (A. R. Kraybill).

The Relation between Achievement in Scholarship of Students in High School and College and Professional School and Success in Life. William T. Foster, Reed College.

College Education Departments and College Education Laymen. A. M. Stowe, Toledo University.

Standards of Southern Normal Schools. Carter Alexander, George Peabody College for Teachers.

Relation between College Activities and Achievements, and Success in Vocation. Bessie L. Gambrill, Alfred University (dissertation at Teachers College).

Acceptance of Science Subjects in Satisfaction of Entrance Requirements in Nineteen American Universities. Arvin Olin, University of Kansas.

The Honor System in American Colleges and Universities (U.S. Bureau of Education, in press). Bird T. Baldwin, Swarthmore College (H. L. Messner, G. W. Greene).

Requirements for Bachelor's Degrees in the United States. W. C. Ruediger, George Washington University (Walter C. John).

College-Entrance Examination in United States History. Thomas J. Kirby, University of Pittsburgh (Thomas D. Brown, Wilkinsburg, Pa.).

Paternalism versus Individual Responsibility in College. C. O. Davis, University of Michigan.

Rural Co-operative Movements in Tennessee. Harry Clark, University of Tennessee.

Elementary Schools of Germany. (Thomas Alexander), Teachers College.

Native Education in South Africa. (C. T. Loram), Teachers College.

Rural-School Problems in the Province of Cape of Good Hope, South Africa. (Matthias Boehmke), Teachers College.

A Study of Causes of Fire Waste. Arland D. Weeks, North Dakota Agricultural College.

HIGH SCHOOL

Administration of City High Schools. (W. J. Gifford), Teachers College.

Distribution of High-School Principal's School Day. C. L. McCabe, University of Illinois.

Evolution of Methods of Financing Public Secondary Education in the United States. J. E. Butterworth, University of Wyoming.

The Relation of the Elective System and Curriculum Differentiation in High Schools. C. H. Johnston, University of Illinois (C. E. Holley).

Status of Normal Training in High Schools of the United States. W. A. Jessup, Iowa State University.

Teacher-training Curricula in Public High Schools. C. H. Johnston, University of Illinois (Mali Lee).

The Teaching of Psychology in Normal Training Classes in Kansas High Schools. R. E. Carter, University of Kansas.

Status of Vocational Subjects in North Central High Schools. W. A. Jessup, Iowa State University.

Vocational History of Eight Hundred Iowa Boys, Fourteen to Twenty Years Old. W. A. Jessup, Iowa State University.

Conditions Affecting a System of Vocational Guidance in Illinois High Schools. (J. H. Hanger), University of Illinois.

Vocational Guidance in the High School. W. C. Ruediger, George Washington University (W. C. Ryan, Jr., U.S. Bureau of Education, Washington, D.C.).

Vocational Guidance in High Schools. C. B. Robertson, University of Pittsburgh (J. C. Evans).

Courses in Manual Training in North Dakota High Schools. Arland D. Weeks, North Dakota Agricultural College.

Supervision in the High School. (F. M. Garver), Teachers College.

Statistical Study of the Minnesota High Schools since 1897. (A. G. Klatt), University of Chicago.

Development of the Secondary Education System in the State of New York. (George F. Miller), Teachers College.

Costs of Various Departments of High Schools of the City of Chicago. (D. R. Henry), University of Chicago.

Self-Support of High-School Students. (W. W. Pettit), Teachers College.

Scholarship of Different Groups of High-School Students. (A. I. Dotey, DeWitt Clinton High School, New York City), Teachers College.

Do Students Who Elect Latin in the High School Have Superior Marks (Grades) in the Elementary School? C. O. Davis, University of Michigan.

Comparison of Town and Country Pupils; or, Do Pupils Coming through City Graded Elementary Schools Make Better Academic Records in the High School Than Do Pupils Coming from Rural Schools? C. O. Davis, University of Michigan.

A Study of the Conditions and Causes of Elimination and Failure in High Schools. H. G. Childs, Indiana University.

Elimination of Boys from Certain Kansas High Schools. C. A. Buckner, University of Kansas.

List of Spelling Errors of High-School Students. W. W. Charters, University of Missouri.

List of Grammatical Errors of High-School Freshmen. W. W. Charters, University of Missouri.

The Six-Year High School in Kansas. C. A. Buckner, University of Kansas.

Study Habits of Secondary Pupils. C. A. Buckner, University of Kansas.

The Super-normal High-School Student. Elmer E. Jones, Northwestern University.

The Benefits of Practice Teaching for Secondary-School Teachers; a Follow-up Study for Eight Years at Indiana University. H. G. Childs, Indiana University.

Administration of Practice Teaching for Secondary Teachers. A. R. Mead, Ohio Wesleyan University.

A Study of Secondary Teachers of Maine (Professional Training, Assignment of Subjects). Arthur J. Jones, University of Maine (Miss Marion S. Buyyell).

High-School Inspection in the United States with Particular Reference to Wyoming Conditions. J. E. Butterworth, University of Wyoming (O. P. Schwiering, Cheyenne, Wyo.).

A Study of Bases for Manual Training Adjustments in Rural High Schools. C. H. Johnston, University of Illinois (O. Hoskinson).

The Examination System in Illinois High Schools. C. H. Johnston, University of Illinois.

Terminology in the Literature of Secondary Education (in press). C. H. Johnston, University of Illinois.

The Effect of Restricting the Work Done by High-School Pupils on the Quality of the Work, and the Cost of Instruction. Paul H. Hanus, Harvard University.

Problems in Unified Mathematics for Secondary Schools. (G. W. Myers), University of Chicago.

Problems in the Teaching of Secondary Algebra. (G. W. Myers), University of Chicago.

Problems on Teaching of High-School Geometry. (G. W. Myers), University of Chicago.

Eliminations in the Algebra Courses in High Schools. (Bernice Harrison), University of Illinois.

The Teaching of Mathematics in Secondary Schools. W. A. Jessup, Iowa State University.

Persistence in High Schools as Related to Work in Mathematics. (Nathan Silverstein), Teachers College.

Method and Content of History in High Schools in the United States. W. A. Jessup, Iowa State University.

Modern Aims and Methods in the Teaching of History. W. F. Russell, George Peabody College for Teachers.

Experimental Study of the Method of Self-Correction in Second-Year English Composition. (Marie Anthony), University of Illinois.

Common Practice in the Teaching of English Classics in High School. Thomas J. Kirby, University of Pittsburgh (Alice Haywood, Brushton High School, Pittsburgh, Pa.).

The Danish People's High School. (Martin Hegland), Teachers College.

HISTORY OF EDUCATION

The Professional Value of the History of Education. Frederick Eby, University of Texas (H. T. Pritchett, Austin, Tex.).

Elementary Education in York County, Virginia, in the Colonial Period. (Guy F. Wells), Teachers College.

Relation of the Church and Clergy to Education during the Colonial Period. (J. R. Young), University of Chicago.

Apprenticeship Education in Colonial New York. (Robert F. Seybolt), Teachers College.

Early Teaching of History in the Secondary Schools of the United States. W. T. Russell, George Peabody College for Teachers.

Evolution of Free Schools in Connecticut and Michigan. (A. R. Mead, Ohio Wesleyan University, Delaware, Ohio), Teachers College.

History of School Administration and Supervision in Three American Cities. L. D. Coffman, University of Illinois (S. D. Huddleston).

Educational Legislation in the Southern States from 1776. (C. F. Dunn), University of Chicago.

History of the Teaching of Arithmetic in the United States. (W. S. Monroe, State Normal School, Emporia, Kan.), University of Chicago.

Source Materials on the History of Education in Texas. Frederick Eby, University of Texas.

History of the American High School. Frederick Eby, University of Texas (Mary C. Sweet, Denton, Tex.).

The Lottery in American Colonial Higher Education. (Martha Schofield), Leland Stanford Junior University.

Relation between Poor Relief and Development of the Free School. (Arthur R. Mead), Teachers College.

Philanthropy in the History of American Higher Education. J. B. Sears, Leland Stanford Junior University.

History of School Discipline. H. H. Horne, New York University (U. L. Thompson, 168 Harrison Ave., Jersey City, N.J.).

The Historic Place of the "History of Education" in the Curriculum. H. H. Horne, New York University (H. M. Coon, Pelham Manor, N.S.).

History of the Secularization of Education in North Carolina. H. H. Horne, New York University (D. B. Bryan, 523 W. 123d St., New York City).

History of Atypical Education. H. H. Horne, New York University (F. J. Keller, 968 Anderson Ave., New York City).

History of the Education of Woman. H. H. Horne, New York University (Margaret E. Lacey, 782 President St., Brooklyn, N.Y.).

History of Public Education in Rhode Island. Walter Ballöu Jacobs, Brown University (Charles Carroll).

The Relation of the *Ratio studiorum* to the *Constitutiones* of the Jesuits. H. H. Horne, New York University (Du Bois Looker, Marlboro, N.Y.).

MEASUREMENTS AND TESTS

GENERAL

Scales for Measuring the Intelligence of the Child and the Youth. M. V. O'Shea, University of Wisconsin.

A New Scale for the Measurement of Intelligence. Lewis M. Terman, Leland Stanford Junior University.

Determination of Eight- and Ten-Year-Old Age Standards in Certain Mental Tests. I. King, Iowa State University (Leo Brueckner, Homer Anderson).

Measurements of Mental Efficiency in Women during the Menstrual Periods (Mrs. Leta S. Hollingworth), Teachers College.

A Graded Scale for Measuring Ability in the Completion Test. (Marion R. Trabue), Teachers College.

Twelve Mental Tests on the Students of Reed College. (Eleanor Rowland), Reed College.

Measurement of Scholarship by Relative Standing and Distributed Grades according to a Modified Normal Probability Curve, and, in Addition, Quality as Well as Quantity of Work toward Graduation. (Florence M. Reed), Reed College.

A Tentative Scale for Measuring the Ability of Candidates for Admission to Do the Work of Reed College. William T. Foster, Reed College.

Mental Tests of College Freshmen. M. V. Bingham, Dartmouth College.

Relative Worth of Standards of Measuring Results of Instruction. Paul Clapper, College of the City of New York.

The Range of Information Test. J. Carleton Bell, University of Texas.

Tests of Elementary-School Children under Various Modes of Supervised Study. (Katherine McLaughlin), University of Chicago.

The Kent-Rosanoff Test Applied to Normal Adolescents in the Mississippi Valley. R. A. Schwegler, University of Kansas.

Revision of the Binet-Simon Intelligence Scale. Lewis M. Terman, Leland Stanford Junior University.

A Second Experimental Study of the Binet Scale. J. E. Wallin, Psycho-educational Clinic, St. Louis Public Schools.

The Standardization of the "Hard Opposite" Test. I. King, Iowa State University (Hugo Gold).

The Standardization of Certain Completion or "Combination" Tests. I. King, Iowa State University (John Moses).

The Measurement of the Efficiency of a System of Schools of Religion. (A. M. Dushkin), Teachers College.

The Measurement of a School System. (H. L. Smith, superintendent of schools, Bloomington, Ind.), Teachers College.

SPECIAL

Construction and Testing of Writing Scale. Survey of Handwriting. F. N. Freeman, University of Chicago.

A Score Card for the Measurement of Handwriting. C. T. Gray, University of Texas.

Tests of Handwriting. (H. T. Manuel, Greencastle, Ind.), University of Chicago.

Standards in Handwriting. W. A. Jessup, Iowa State University.

An Application of the Ayres Handwriting Scale. F. S. Breed, University of Michigan (Vernon Culp).

A Study in Writing Abilities of School Children. I. King, Iowa State University (George Hilliard, Rollo Newcomb).

Courtis Series B Arithmetic Tests with Six Hundred Children. Cyrus D. Mead, University of Cincinnati.

The Application of the Courtis Arithmetic Tests to College Students. Bird T. Baldwin, Swarthmore College (Ethel Harvey).

Tests in Plane Geometry. J. Carleton Bell, University of Texas (L. V. Stockard, Austin High School, Austin, Tex.).

Scoring English Compositions. J. Carleton Bell, University of Texas (T. A. Fisher).

Measurement of Drawing Ability of School Children by a Supplemented Thorndike Scale. H. G. Childs, Indiana University.

The Extent to Which History Trains Judgment. W. F. Russell, George Peabody College for Teachers.

A Scale for Measuring Progress in Latin. V. A. C. Henmon, University of Wisconsin.

Tests of Reading in the Elementary School. (W. S. Gray), University of Chicago.

Courtis Series C English Tests with Six Hundred Children. Cyrus D. Mead, University of Cincinnati.

The Usefulness of the Harvard-Newton Scales for Measuring English Composition. H. W. Holmes, Harvard University.

Scales for Rating Teachers. (A. C. Boyce), University of Chicago.

Measurement of Teaching Efficiency. C. A. Buckner, University of Kansas.

A Score Card in Physical Growth. Bird T. Baldwin, Swarthmore College.

PRINCIPLES OF EDUCATION

The Concept of Evolution in Some of Its Implications for Educational Theory. (H. E. Clark), Teachers College.

Kindergarten Theories of Friedrich Froebel. William H. Kilpatrick, Teachers College.

The Educational Philosophy of Thomas Jefferson. H. H. Horne, New York University (J. A. Lesh, 9 Van Nest Place, New York City).

The Educational Philosophy of William T. Harris. Frederick Eby, University of Texas (Edith Harris).

EDUCATIONAL PSYCHOLOGY

MISCELLANEOUS

The Perception of Time in School Children. (Agnes L. Rogers), Teachers College.

A Study of Mental Retardation in Relation to Etiology. Bird T. Baldwin, Swarthmore College.

The Psychology of Learning. Bird T. Baldwin, Swarthmore College (Marie Weeks).

The Effect of Frequency of Practice in Learning. E. F. Buchner, Johns Hopkins University (H. H. Murphy, Glyndon, Md.).

Mode of Presentation and Learning. V. A. C. Henmon, University of Wisconsin.

Some Psycho-educational Studies in Mental Retardation. Bird T. Baldwin, Swarthmore College.

Variation in the Achievements of Pupils. Bureau of Publications, Teachers College.

Correlation of Abilities. Cyrus D. Mead, University of Cincinnati (Charles R. Rounds).

Individual Differences in Reading. C. T. Gray, University of Texas.

The Dream Life of the Adolescent. (R. A. Schwegler), University of Kansas.

A *Sammelbericht* on the Psychology of Adolescence. Bird T. Baldwin. Swarthmore College (G. W. Greene).

A Genetic Study in the Psychology of Play. Bird T. Baldwin, Swarthmore College.

The Relation of Meningitis to Mental Deficiency. Bird T. Baldwin, Swarthmore College (Eloise West).

Mental Levels. W. C. Ruediger, George Washington University. (Harriet Underwood, 2551, 37th St. N.W., Washington, D.C.).

Reaction Types as They Are Revealed by the Galvonometer. R. A. Schwegler, University of Kansas.

The Intelligence of Juvenile Delinquents in the Whittier (California) State School. Lewis M. Terman, Leland Stanford Junior University (J. Harold Williams).

The Mental and Physical Status of Kansas Juvenile Delinquents. R. A. Schwegler, University of Kansas.

The General Effects of Visual Sense Training in Children. F. S. Breed, University of Michigan (J. F. Shepard, C. P. Wang).

The Learning Ability of Animals at Different Ages. E. F. Buckner and J. B. Watson, Johns Hopkins University (Helen B. Hubbert).

Vocabulary Development. Lewis M. Terman, Leland Stanford Junior University.

Case Studies of Superior Children. Lewis M. Terman, Leland Stanford Junior University.

The Acquisition of Skill in Archery. E. F. Buckner and J. B. Watson, Johns Hopkins University (K. S. Lashley).

Normal Form Board Norms. J. E. Wallin, Psycho-educational Clinic, St. Louis Public Schools.

Construction of a Graded Series of Form Boards for Young or Low Grade Subjects. J. E. Wallin, Psycho-educational Clinic, St. Louis Public Schools.

Consecutive Serial Intelligence Tests of Epileptic and Normal Children. J. E. Wallin, Psycho-educational Clinic, St. Louis Public Schools.

Anthropometric Tests of Epileptic, Feeble-minded and Normal Children. J. E. Wallin, Psycho-educational Clinic, St. Louis Public Schools.

A Statistical Study of Speech Defects in the St. Louis Schools. J. E. Wallin, Psycho-educational Clinic, St. Louis Public Schools.

Tests of Prize Babies in Perfect Babies Contests. J. E. Wallin, Psycho-educational Clinic, St. Louis Public Schools.

Transfer of Training in Connection with Descriptive Geometery. W. C. Bagley, University of Illinois (H. O. Rugg).

Physiological Age and School Standing and School Progress. I. King, Iowa State University.

SCHOOL SURVEYS

College and University Educational Efficiency Service Bureaus. A. Monroe Stowe, Toledo University.

Illinois School Survey. L. D. Coffman, University of Illinois.

Present Conditions and Needed Readjustment in Elementary and Secondary Progress (Part of Work Undertaken by Illinois School Survey). W. C. Bagley, University of Illinois.

Survey of the School System of Santa Cruz County, California. E. P. Cubberley, Leland Stanford Junior University (L. R. Fulmer).

Survey of the School System of Santa Clara County, California. E. P. Cubberley, Leland Stanford Junior University (L. G. Smith).

Survey of the Educational, Social and Economic Resources of Manhattan, Kansas. Edwin L. Holton, Kansas State Agricultural College.

Rural School Survey. J. B. Sears, Leland Stanford Junior University.

Descriptive Survey of Educational Periodicals. Fred C. Ayer, University of Oregon.

TEACHING METHODS AND CURRICULUM

Standard Topics and the Time Required for Teaching Them in Elementary- and Secondary-School Subjects. Paul H. Hanus, Harvard University.

Readjustment of School Methods for the Better Assimilation of the Immigrant Population. (Samuel Margosher), Teachers College.

Economy of Time in Drill Work. Thomas J. Kirby, University of Pittsburgh (John A. Hollinger, Holmes School, Pittsburgh, Pa.).

Bibliographical Review of the Literature on Home Study in English, German, and French. W. H. Heck, University of Virginia.

Comparative Tests of Home and School Study in Harrisonburg, Virginia. W. H. Heck, University of Virginia.

A Week's Record of Home Study from Twelve Thousand Grammar-Grade and High-School Pupils in Virginia. W. H. Heck, University of Virginia.

Differences in Method and Accomplishment in Study as Determined by Explicit Aims. R. E. Carter, University of Kansas.

Recent Tendencies in the Teaching of Elementary Applied Mathematics. (J. R. Young), University of Chicago.

Economy of Time in Arithmetic. W. A. Jessup, Iowa State University.

List of Grammatical Errors of Grade Pupils of Kansas City (in press). W. W. Charters, University of Missouri.

An Analysis of the Written Style of Elementary-School Pupils. H. W. Holmes, Harvard University.

Social Survey of Current Language Errors. (Edgar D. Randolph), Teachers College.

Teaching of English in Rural Schools of East Tennessee. Harry Clark, University of Tennessee (E. M. Hopkins, Lawrence, Kan.).

The Status of the Course of Study in English in Elementary Schools. W. A. Jessup, Iowa State University.

Experimental Study of Reading. (W. A. Schmidt, University of Oklahoma), University of Chicago.

Silent versus Oral Reading (Sixth Year). Cyrus D. Mead, University of Cincinnati.

Silent versus Oral Reading in Grades III, IV, V. C. D. Mead, University of Cincinnati.

Studies in Oral and Silent Reading. J. Carleton Bell, University of Texas (Mrs. Charles S. Taylor).

Reading in the Elementary Schools. W. A. Jessup, Iowa State University.

A List of Common Words Graded according to the Spelling Difficulty Objectively Determined. H. W. Holmes, Harvard University.

The Teaching of Spelling: (1) Print versus Script; (2) Column versus Context. F. S. Breed, University of Michigan.

Spelling Efficiency in a City School System. J. B. Sears, Leland Stanford Junior University.

Construction of Spelling Lists by Study of Frequency of Usage. (Winifred Warning), University of Chicago.

Music in American Public Schools. (J. B. Cragun), University of Chicago.

A Comparative Study of the Social Demand for Geography. W. A. Jessup, Iowa State University.

Minimal Essentials in Elementary Geography and History (in Connection with Committee on Economy of Time). W. C. Bagley, University of Illinois.

Social Survey of Geographical Facts and Relations Required in Daily Life. (E. E. Lewis, University of Iowa), Teachers College.

The Status of Geography. W. A. Jessup, Iowa State University.

Social Survey of Civic Knowledge Required in Daily Life. (Mrs. Alice Getterman), Teachers College.

Courses of Study in Manual Training. W. A. Jessup, Iowa State University.

The Analytical Functions of the Drawing Process. Fred C. Ayer, University of Oregon.

School Hygiene Conditions in the Middle West. W. A. Jessup, Iowa State University.

Physiology and Hygiene in Elementary Schools. W. A. Jessup, Iowa State University.

Nature-Study and Agriculture in Elementary Schools. W. A. Jessup, Iowa State University.

The Use of Plots of Ground in the Teaching of Agriculture. Arland D. Weeks, North Dakota Agricultural College.

Suggestions to Beginners in the Teaching of Agriculture—Based upon a Study of Agricultural High Schools in the Northwest. Arland D. Weeks, North Dakota Agricultural College.

Rhythm in Handwriting. (H. W. Nutt), University of Kansas.

A Comparison of Systems of Teaching of Penmanship. H. W. Holmes, Harvard University.

School Efficiency in Relation to Time Allotment in the Course of Study. (James B. Wells), Teachers College.

A Statistical Study of Time Schedules and Curricula in Special Classes. J. E. Wallin, Psycho-educational Clinic, St. Louis Public Schools.

Artificial Incentives in College Work. W. C. Ruediger, George Washington University (John A. Garber, 508 B St. S.E., Washington, D.C.).

Vocational Subjects in American Colleges. (E. A. Miller), University of Chicago.

MISCELLANEOUS

Permanency of Farming as an Occupation. G. M. Wilson, Iowa State College.

Characteristic Types of Association among Pupils in the Elementary Grades (J. R. Young), University of Chicago.

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